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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. BARTHOLOMEW'S HOSPITAL.

AMPUTATION AT THE HIP-JOINT.

Under the care of E. STANLEY, Esq.

CASES of amputation at the hip-joint have been comparatively both frequent and, on the whole, successful, in the London hospitals of late; at least they have been so far favourable that the two last cases which we can call to mind, that by Mr. Curling, at the London Hospital, and Mr. Tatum, at St. George's, recovered from the operation, and survived some months. Both, however, died in about half a year, from the recurrence of malignant disease in the lungs. The case operated on last Saturday by Mr. Stanley was a more than usually formidable one, in consequence of the proximity of the tumour to the upper end of the bone, and the consequent impossibility of removing the limb by the common flap operation. This rendered the present operation a much less brilliant proceeding than it appears when the whole limb is removed in a minute, or less, by a few strokes of the amputating knife, but allowed, perhaps, quite as much, if not more, opportunity for the exercise of the best qualities of an operating surgeon. The patient, a man aged 52, of not very robust frame, had fractured his thigh about three years before, when he was an inmate of St. Bartholomew's Hospital. The tumour had commenced at or near the seat of the old fracture, nine months before the date of his admission, and had gradually increased up to the present time. It was of large size, and extended up from the middle of the thigh to the upper end of the femur. There appeared to be just sufficient room to remove the limb from the articulation, leaving enough soft parts to form the stump. This, however, could only be effected by cutting the flaps from the skin downwards, by such incisions as seemed advisable in each part, and securing the large vessels in one part before going to the next. Accordingly a small flap was cut from the front portion (Mr. Paget having command of the artery), and then the femoral and other large vessels were secured in this flap. A portion of soft parts was then obtained from the inside, where the disease seemed to encroach least, and the joint having been opened from the outside, the limb was removed. Little of the flap could be made from behind, and the stump in this part consisted, as it seemed to us, principally of skin. The bleeding, considering the necessarily protracted nature of the operation (which took twelve minutes from the time of the first incision till the final removal of the thigh), was not very formidable, and the soft parts, when put together, formed a very good covering for the bone. The acetabulum appeared quite natural, and the muscles in the flap looked healthy. The disease proved to be cancer, of the medullary variety. The result of this case will be given as soon as circumstances permit.

ST. MARY'S HOSPITAL.

OPERATION FOR RECTO-VAGINAL FISTULA AND PROLAPSE OF THE WOMB.

Under the care of I. B. BROWN, Esq.

AN interesting example of complicated deformity following parturition is now under Mr. Brown's care. The patient was confined about a year ago: the labour was difficult, and the perinæum was ruptured at the time; but the rent did not appear to have involved the sphincter, and had healed up, apparently without any symptoms. There was a hole through the recto-vaginal septum just beyond the internal sphincter, large enough to admit the end of the finger, through which the motions flowed continually into the vagina. Besides this there was complete prolapsus of the uterus, so that when she stood up the whole body of the organ protruded from the vagina; and even as she was brought into the theatre in the recumbent position it was found that the os and cervix were outside of the vulva.

The operation which Mr. Brown performed on March 25th had for its object to remedy both these conditions. With this view, the mucous membrane was extensively pared away from the lower and back part of the vagina, and thus a raw surface was obtained extending around and beyond the cleft. The sphincter ani was next divided freely in the middle line posteriorly, and then the parts were united over this line of incision. Thus the calibre of the vagina was much contracted, and so an obstacle opposed to the descent of the uterus, as in the ordinary operation for that affection, while the communication between the rectum and vagina was also obliterated. The parts were brought together by the same suture as Mr. Brown employs for ruptured perinæum, viz., the quilled suture passed deeply from side to side, and the interrupted suture to the edges. On examination after the stitches were tied, the fissure was found completely closed.

WESTMINSTER HOSPITAL.

I. BELLADONNA IN INCONTINENCE OF URINE.

Under the care of C. BROOKE, Esq.

[*From notes by* G. NAYLER, ESQ., *House-Surgeon.*]

FREDERICK T., aged 17, an intelligent lad, was sent up from the country to be placed under Mr. Brooke's care for incontinence of urine. From his own statement it appeared that he rarely passed a night without wetting the bed. He had been under treatment for two months previous to his admission, but without benefit. On his admission (March 18th) he was ordered to take the sixth of a grain of extract of belladonna three times a day. A daily record of his case was kept; but with the exception of the first night, when he passed water once, he was not troubled in this respect again. In a fortnight from the time of his admission (March 31st) he was considered sufficiently recovered to be sent home again.

REMARKS. This case exhibited an even more speedy improvement under the action of belladonna than the one previously reported from the same Hospital. It was indeed in consequence of the report of that case which appeared in this JOURNAL that the gentleman under whose care the lad then was advised his removal to the Westminster Hospital; and in consequence of the animadversions of Dr. Cowdell upon that case, particular attention was paid to this lad, and daily notes kept of his progress. The amendment which followed the use of belladonna was too striking to be overlooked. The lad's own account of his previous symptoms (viz., that he had been troubled with this distressing malady as long as he could recollect, and hardly ever passed a night without involuntary discharge of urine) was corroborated by a letter received from those who had charge of his case. Yet after the commencement of the belladonna treatment the symptoms subsided so rapidly and so entirely, that it was not thought justifiable to keep him longer in Hospital; and, in default of a better expression, it was necessary to report him "cured." We shall hope to hear again of this patient in order to know whether the disease recurs on the cessation of the remedy, or whether the cure is really permanent.

II. BELLADONNA IN THREATENED LACTEAL ABSCESS.

Under the care of B. HOLT, Esq.

While on the subject of the curative action of belladonna, it may be useful to record another instance of benefit derived from its use in a case similar to some previously reported in this JOURNAL.

Sarah W., aged 23, a healthy young woman, was admitted under the care of Mr. Holt, March 19th, on account of an abscess of the left breast which had been opened three days before her admission. Seven days after her admission she complained of pain in the right breast, which was much enlarged and tender to the touch; and on manipulation a hard lump could be felt deep in the gland. She had been suckling a child till a few days before her admission into the house, since which time the milk had been removed by a breast-pump. The pain and swelling were evidently referrible to the confinement of the milk secreted; and in consequence of reports of cases in this Journal in which this secretion had been stopped by the use of belladonna, it was resolved to give it a trial. The following ointment was therefore applied daily, spread on lint: One drachm of belladonna to an ounce of spermaceti ointment. Much relief immediately followed, the pain and swelling soon subsided, and on March 31st she was well enough to be discharged. The only treatment besides the application of belladonna consisted in the use of local support and of tonics, both of which she had been using previously.

HOSPITAL FOR SICK CHILDREN.

NECROSIS OF THE LOWER END OF THE SHAFT OF A LONG BONE IN CHILDHOOD.

Under the care of A. Johnson, Esq.

An operation which was performed at the above Hospital on March 27th, affords another illustration of the fact pointed out in a recent number of this Journal, viz., that necrosis of a limited portion of the shaft of a long bone near its articular end is much more frequent in children than is usually supposed. The patient in this instance was a little boy, who had suffered for several months from symptoms of disease of the ankle. There was much thickening of the lower end of the tibia from the deposition of new bone, but the articulation itself seemed quite free from disease. A sinus at the posterior border of the tibia, a short distance above its malleolar extremity, led into a cavity in the substance of the bone in which dead bone was easily felt with the probe; and on this opening being enlarged with the trephine two portions of loose bone were easily found and extracted. When put together, they were found to be about as large as a hazel-nut. All the parts in the neighbourhood seemed healthy.

ST. GEORGE'S HOSPITAL.

LIGATURE OF THE FEMORAL ARTERY FOR ANEURISM, AFTER THE UNSUCCESSFUL EMPLOYMENT OF PRESSURE.

Under the care of T. Tatum, Esq.

An instance of the failure of the treatment by compression was witnessed here on March 16. The patient, an apparently healthy man, had been admitted previously with a small popliteal aneurism. The case seemed a simple one, and well adapted for the treatment by compression; as the sac was small, there was no implication of the knee-joint, nor any pressure on the venous or nervous trunks, and the man was in good health. Accordingly pressure was employed in the usual manner, and at first with good results. The pulsation diminished in power; solids began to be deposited in the sac. He bore the treatment well, and appeared well disposed to second the wishes of his attendants in regulating and directing the pressure. Still it was noticed that the size of the tumour did not much diminish. After three weeks use of the pressure it was omitted, as the pulsation had entirely disappeared. Nevertheless, the swelling did not subside; and after a few days it became obvious that it was, on the contrary, increasing, though no pulsation could be felt. The pressure was, therefore, resumed, and, as before, was borne perfectly well, but did not appear to produce any benefit, as the swelling continued slowly to enlarge, and an indistinct pulsation was thought to be perceptible in it. A consultation was now held as to the propriety of tying the artery; but as it was thought that the symptoms were not very urgent, and as it was possible that some error might have been made in the direction or application of the force, it was resolved to continue the pressure for a few days more, and even increased attention was given to the latter point. On the day before the operation, however, it was noticed that the tumour had nevertheless increased, and in the course of that day, after a severe attack of pain, the size of the swelling suddenly increased, and the diffused character of the semi-solid tumour left no doubt as to the rupture of the sac. The operation had now become imperative, and was accordingly performed in the usual manner, by taking up the artery in Scarpa's triangle. Notwithstanding the lengthened employment of pressure, the cellular tissue did not appear in any respect unhealthy, and the artery was found as readily as is ever the case in persons who, like this patient, are of large and stout build.

Remarks. In commenting on this case Mr. Tatum remarked, that the temperature of the foot had appeared, to those who were standing round the patient, to have fallen somewhat immediately on the ligature of the vessel, on which account the limb was swathed in cotton-wool before the man was removed from the theatre. He dwelt also on the unfavourable influence which the pressure of so large a mass in the ham, obstructing as it did the return of the venous blood from the foot, might have on the progress of the case. Otherwise the circumstances were tolerably favourable, as the man's health did not seem to have suffered, and no other disease was known to exist.

Original Communications.

CONTRIBUTIONS TO THE PATHOLOGY OF CARDIAC DISEASES.

By W. O. Markham, M.D., Fellow of the Royal College of Physicians, Assistant-Physician to St. Mary's Hospital.

OPEN FORAMEN OVALE: LOUD SYSTOLIC BRUIT: TUBERCULOSIS OF THE LUNGS: CAN AN OPEN FORAMEN OVALE PRODUCE A BRUIT?

C. S., aged 4, had always been considered a delicate child. A year ago, she was, for some cause, under the care of my friend Dr. Sieveking, but had since then enjoyed good health up to the period of my seeing her. On Feb. 7th, 1857, the child was brought to the hospital by the mother, who informed me that she had been ill about three weeks, that she was falling away, had become thin and pale, had lost her appetite, and was occasionally sick; that she was also fretful and irritable, and had an occasional slight cough. On examining the chest, I found a rough loud systolic bruit, which was audible all along the base of the heart, and in the whole of the left subclavicular region; it was indistinctly heard below the nipple, and was scarcely audible at the heart's apex; its point of greatest intensity was to the left of the upper part of the sternum; it was not audible up the right edge of the sternum, along the course of the aorta. I found nothing abnormal in the sounds of the lungs, excepting only that I believed the subclavicular region of the left side was slightly duller, on percussion, than that of the right side. Taking into consideration the general condition of the child, the peculiar situation of the bruit, the absence of all symptoms of cardiac disease, and the possible presence of a left clavicular dull percussion-sound, I formed the diagnosis that the child was suffering from tubercular disease of the lungs; though at the same time, on account of the absence of other signs and symptoms of pulmonary disease, I placed a query by the side of the diagnosis entered on the paper.

During the following ten days, under the use of cod-liver oil and steel, the child appeared to improve in health. On the 18th, however, about twelve days after I had first seen her, she was brought to me, greatly altered in appearance. The mother informed me that, on the preceding evening, the child (who, up to this moment, seemed still improving) had been suddenly seized with violent convulsions and great difficulty of breathing, and that she had been struggling and fighting for life the whole of the night, the mother expecting that every moment would have been her last.

It was evident now that some serious mischief had fallen on the brain. Instead of being, as hitherto, restless and irritable, and hard to manage, she lay in her mother's arms, sleepy and drowsy, stupid, difficult to rouse, and partially senseless. There were also convulsive twitchings and jumpings of the right shoulder, but no paralysis. The face was flushed, the pulse rapid, and the skin hot and dry. There was no cough, nor was the respiration particularly affected: she breathed freely, in fact. On examining the chest, I found the heart's action violent; the bruit mentioned above was still present, but it was

now louder, rougher, and more prolonged; it was distinctly audible over the whole præcordial region, also over the upper part of the sternum, and along its right border. It was also heard remarkably loud in the whole of the upper half of the interscapular space—equally loud on either side of the spine. The lungs were carefully examined, but nothing abnormal could be detected in any portion of them. A note was made at the moment, that the respiratory murmur was every where loud and clear, and the percussion-sound good. Not the slightest râle was anywhere audible.

I may here observe, that the child was not altogether free from symptoms of cyanosis. It is true they were so little marked, that I should not have noticed them, had not the mother called my attention to the circumstance, that the child's feet were generally cold, and often of a blueish red colour; and that the small veins immediately around the nails of the hand were swollen and dark coloured. The serious condition of the child at the moment entirely distracted my attention from this particular fact.

Taking into calculation the signs and symptoms here recorded, I came to the conclusion that the child was now suffering from cardiac inflammation. I founded this opinion on the violence of the febrile action, the intensity and now wider distribution of the cardiac bruit, and the absence of signs and symptoms of pulmonary disease. The choreic twitchings of the arms, the strong beatings of the heart, and the cerebral symptoms, confirmed the opinion, that there was cardiac inflammation, and that the disease had secondarily involved the brain.

The child died about seventeen hours after I had seen her, and had made the above examination.

Necropsy of the body revealed the following condition of the heart and lungs. The *Heart* presented, neither externally nor internally, the slighest trace of inflammation; nor was there, as far as the eye could judge, any deviation from their normal condition observable in any of the valves or of the orifices of the organ. There was neither constriction of the orifices, nor of the roots of the great vessels, nor any defect in the valvular apparatus. In all respects, the heart appeared healthy and normal, excepting one, and this was in an open condition of the foramen ovale. The foramen ovale, though largely open, so as to permit the point of a finger to pass from the right into the left auricle, was partially closed, on the left side of the septum, by a peculiar adjustment of the membranous valve. This membrane, about one-third of an inch wide, was attached at the upper and lower parts of the opening, but at its intermediate parts was free and unattached; in consequence of which, it would permit a stream of fluid to pass readily from the right into the left auricle; but, should the current tend to pass in an opposite direction—from the left to the right auricle—then the membrane, falling back on the opening, and acting as a valve, would prevent the flow of the fluid, excepting through two narrow semilunar slits which still remained unclosed, one on either side of the membranous valve.

The *Lungs* were dark coloured, and did not contract much when the thorax was opened. On incising them, I found that there was not a single portion of any lobe of either lung which was not studded with miliary tubercles. These tubercles, about the size of mustard-seeds, were equably distributed through all parts of the lungs, and were evidently deposited at a similar moment, for they all presented exactly similar appearances: they were placed at intervals of about half an inch apart. The lung-tissue intervening was perfectly healthy and crepitant, and readily distensible by inflation. Very little bloody serum escaped from the cut surfaces of the lungs, nor was any observed in the larger bronchial tubes.

Remarks. Such was the history of the physical signs and symptoms carefully taken during life, and such the condition of the heart and lungs found after death, in this very interesting case. One or two points of considerable importance, affecting the diagnosis of the diseases of the heart and lungs, appear naturally to suggest themselves for consideration in connexion with the history.

What was the cause of the cardiac bruit? and how came it, that, with such a large and extensive deposition of tubercles in the lungs, no physical signs of disease of the pulmonary organs were present, when the chest was examined only seventeen hours before death, and that the respiratory murmur was then loud and clear, the percussion very good, and no râle anywhere audible?

When I first saw the child, I imagined that the bruit was in some way connected with, and in fact indicated, tubercular disease of the upper lobe of the left lung; for, as is well known, we occasionally meet with a bruit in such case at the left of the sternum, taking the direction of, and therefore supposed to have some connexion with, the pulmonary artery; the hypothesis being, that the artery or its branches are at some point compressed by the swollen mass of the tubercular lung. The history and cause of such bruit, however, I may observe, are very obscure; and, whether the condition mentioned be the true one or not, it is very clear, from the nature of the bruit heard in the present case, its extent, its loudness, and the position where it was heard most intensely, that it is not to the tubercular condition of the lungs that we must look for its explanation.

It seems, then, not unnatural—as the valves and orifices of the heart itself were normal, and as no change of structure could be found in the aorta, or in any of the parts around the great vessels at the root of the lungs—to suggest, that the bruit had its origin in the open foramen ovale. On any other supposition, the bruit seems inexplicable. But here we are met with the difficulty, that, in all cases of open foramen ovale hitherto met with in which bruits have been heard during life, there have been found (where examinations have been made after death), in addition to the open foramen ovale, abnormal conditions in other parts of the heart, or of the great vessels, such as of themselves might be considered sufficient to produce the unnatural sound.* And then, again, it is asserted, *à priori*, that, from the very nature of the parts implicated, it is scarcely possible a bruit could be produced from an open foramen ovale. Let us consider shortly the value of these two objections.

I may, in the first place, safely conclude that, in this heart, there really did exist no abnormal condition beyond that of an open foramen ovale; for the organ was submitted, at the Pathological Society, to the inspection of some of our most distinguished cardiac pathologists, and they could discover none other.

If we consider the question, we shall find, that the fact of some other abnormal state of the heart having been always found present, coincidently with an open foramen, in cases where the bruit had been heard during life, does not militate against the idea, that an open foramen ovale may of itself, under certain conditions, give rise to a murmur. For is it not very possible that such murmur may have been present in many cases simply of open foramen ovale, but was not discovered during life, because the disturbances to the circulation, produced by the simple lesion, were not of themselves of a nature marked enough to excite attention? In cases, and these are the most ordinary kind, where the pulmonary artery is at the same time constricted, it is evident that disorders in the heart's action must ensue, such as would inevitably demand notice. Cases where the foramen ovale must have been partially open during life, and yet where no symptoms to mark the fact had been observed, are frequently met with; and assuredly, in the majority of these cases, it would be a complete begging of the question to affirm, that no murmurs really existed during life. It is more correct to say that, in the very great majority of cases of simple open foramen ovale, disturbances in the circulation do not occur, and therefore no examination of the heart is made during life. Practically speaking, how many cases are there on record, where simple open foramen ovale has been found after death, in which the observer can affirm that no murmur existed during life? I suspect, very few; and if so, then it follows, that there is no evidence positively demonstrative of the non-existence of such a murmur; and that the objections to it are purely hypothetical.

In the next place, why should we judge such a bruit to be improbable, on account of the nature of the conditions under which it must be produced? Let us shortly consider what these conditions are. It must be remembered that the bruit was heard during the time of the systole of the heart's ventricles, and must have therefore been *coincident with the diastole of the auricles*. A bruit arising at an open foramen, coincidently with the systole of the auricles of the heart, appears to be an impossible occurrence, for the reason that (the foramen being open, and consequently the blood in the two auricles freely communicating) the pressure on the blood during the auricular systole would be equal in both auricles, and consequently there would be no tendency of currents of

* Dr. Walshe, who must be as well acquainted as any one with the real position of the case, states in his work on the *Heart and Lungs*, p. 711:—"I do not know that we are in a position to assert positively, that patency of the foramen ovale will in itself cause murmur; for in all the records that I have met of the coexistence of the two things, either constriction of the pulmonary orifice is actually stated to have existed, or it may have existed."

blood to pass from one auricle to the other. But a very different condition of things obtains during the diastole of the auricles; then, the blood, rushing from the venæ cavæ and the pulmonary veins into the relaxed auricles, might readily find its way through an open foramen ovale, and, under certain conditions, conceivably produce such vibrations as would be represented by murmurs to the ear of the auscultator. How, indeed, can it be asserted with confidence, that, in those cases of open foramen ovale associated with other defective conditions of the heart, in which murmurs were heard during life,—how can it be asserted, that none of the murmurs ever arose at the open foramen? Why is it assumed that they always take their origin in those other defective conditions, whatever they be, of the heart?

In the present case, the anatomical condition of the aperture of the foramen was plainly most favourable for the production of vibrations, viz., a thin membranous band stretched across the opening, and attached only at its two extremities. A current of blood rushing through such an aperture, from the right to the left auricle (and we have seen that the current could not pass from left to right) would hardly fail to throw the membrane into a vibratile state. Any impediment to the passage of the blood through the lungs, and consequently through the right side of the heart, would naturally tend to increase the flow of blood through the foramen ovale, by obstructing its ready exit from the right auricle into the right ventricle. In this case, we must suppose that the tubercular condition of the lung impeded the circulation, and so might have increased the intensity of the bruit, as it was last heard during the life of the patient.

Again, it has been objected that the force of the blood flowing into the auricle from the venæ cavæ is not sufficient to give rise under such circumstances to a bruit. To this I will answer, that great force in a current is not always necessary to produce a bruit, and that under a favourable combination of things a weak current may occasion a very loud murmur. Let me call to mind: a prolonged loud and thrilling diastolic mitral murmur; the roaring bruit, which is so often heard in the necks of anæmic girls, produced by the least pressure of the stethoscope on the cervical veins. Even over the radial artery of anæmic persons I have on two occasions heard a bruit which, if heard over the cardiac region, would have been called a loud blowing murmur. If such currents of blood give occasion to such murmurs, why not one resulting from the rush of blood from the venæ cavæ—the venous trunks of the body—into the right auricle, and then through the open foramen ovale.

For such reasons, I think the objections to the probability of the bruit being in this case formed at the foramen ovale untenable. One argument in favour of the view I hold I have not yet mentioned, though I think it a very powerful one; it is this: If the bruit was *not* formed at the foramen ovale, what produced it? I certainly think it much more rational to believe, that a long and loud bruit, such as this, heard on several separate occasions (and most carefully observed) at a peculiar part of the thorax in front, and loudly also in the interscapular region, arose at the open foramen, than to acquiesce in the proposition that some inexplicable mystery involves the subject. I have given, I think, fair reasons why, *à priori*, there is nothing improbable in the existence of such a murmur; and the facts, as here related, appear to me to justify the conclusion, that a murmur so produced really did exist in the present case.

Another fact of considerable interest was observed in connection with the lungs. I have stated that, seventeen hours before death, a careful examination detected no alteration whatever from the healthy state at any part of the chest, either in the percussion or auscultation sounds of the lungs; and that, nevertheless, there was found, after death, no portion of either lungs in which were not thickly strewn miliary tubercles. The fact that tubercular matter may be deposited, under certain conditions, in the pulmonary tissues, and yet produce no alterations in the physical signs, such at least as our senses can detect, has long been admitted by our best auscultators; but it is one which we have not frequently an opportunity of positively demonstrating, and I venture to think has been of late somewhat overlooked. There are writers, for example, who speak of a pretubercular stage of phthisis; but how do they prove the non-existence of tubercle in the lungs in such cases? Evidently they can only do so by forming their judgment on the absence of those physical signs, which indicate the presence of foreign matters in the pulmonary tissue. How fallacious such a mode of judging is, seems proved by this case. The absence of morbid physical signs is no *proof* of the absence of tubercle in the lungs; and therefore to speak of a pre-tubercular stage of phthisis (or indeed of pulmonary phthisis at all, apart from the presence of a tangible materies morbi in the lungs) appears an abuse of language, unwarranted by true observation or by fair hypothesis. Let me put the case in another form. Would the warmest supporters of pre-tubercular stages of phthisis venture to call *that* a case of tubercular disease of the lungs, in which, however strongly marked during life had been the signs of their (so-called) pre-tubercular condition, no tubercle could be found after death? In this respect, and as demonstrating the difficulties which beset the auscultator, I venture to think this case well worthy of record.

The reasons why physical signs of disease are absent in cases of this nature are, I think, plain. Skoda says: "There are no distinct signs by which we can with certainty diagnose the existence of acute miliary tubercles; we can only surmise their existence. Solitary tubercles do not of themselves produce the slightest change in the percussion-sound of the lungs, even though they be scattered through these organs in very considerable quantity." In this case healthy air-containing tissue intervened between the tubercles; and so no alteration occurred in the percussion-sound. The respiratory murmur was clear and loud; because the air entered freely into all parts of the lungs. There were no râles; because there was no inflammatory exudation; indeed, the tissues when cut across were, comparatively speaking, remarkably dry.

The pathological specimens on which the above remarks are founded, excited some discussion at the Pathological Society, and I have therefore detailed the case at length. It appears to illustrate a new fact in relation to the origin of cardiac bruits; and to demonstrate a point of great practical significance in the diagnosis of pulmonary disease. In another respect the case is instructive, and exemplifies a well-repeated apopthegm—(too rarely illustrated practically) viz., that our errors are sometimes full of instruction. I know not whether some exceedingly cunning observer might not have escaped the complete error of diagnosis into which I fell; but of this I am sure, that the majority of us would have infallibly agreed with me at the moment in the false diagnosis, had they seen and heard the symptoms and signs as I saw and heard them. At all events, if the views I have taken regarding the origin of the cardiac bruit be correct—and I do not see on what grounds they can be disputed—it is certain that there is established by this case the existence of a source and mode of origin of a cardiac bruit, as yet neither recognised nor admitted in the history of the physical diagnosis of the abnormal sounds of the heart.

ON THE LOCAL ENCOURAGEMENT OF SCIENCE BY THE STATE.

By Henry W. Rumsey, Esq., Cheltenham.

An important question has been mooted at the two last anniversaries of the British Association for the Advancement of Science, namely, "Whether any measures could be adopted by the Government or Parliament that would improve the position of science and its cultivators?"

Before offering any suggestions of my own, I wish to express my unqualified assent to the principal propositions which have been already made by eminent persons, and which are embodied in the printed reports of that association; such as—the institution and liberal endowment of professorships of physical science, where these do not exist in sufficient number and variety, at our universities; the encouragement of the study of physical science by the foundation of scholarships, fellowships, and other similar rewards for proficiency therein; the localization and accommodation of various learned and scientific societies at the cost of the nation, in an appropriate building in the metropolis; and the constitution of a central board of science, composed partly of persons holding offices under the Crown, and partly of men of the highest distinction in science, to whom the Government might refer for aid and advice in the application of national funds, and in the public execution of projects for the promotion of science.

But the object of the following suggestions is to endeavour to show that the Government and Parliament might, with equal reason, be called upon to establish and maintain, in every district of the kingdom, an organised system of scientific investigation and statistical record in the various departments of

natural science,—those especially which bear obviously and practically upon the moral and physical welfare of the masses of society.

At the last meeting of the British Association, Lord Stanley, in his excellent address to the section of Economic Science and Statistics, clearly laid down the principle, that the collection of statistics in all departments is essentially an affair of Government. In this opinion, I most fully concur. Private labourers in the field of statistical research, however earnest, influential, and intelligent, are generally deterred from a continuous prosecution of their investigations, partly by the great expense attending upon casual and isolated efforts, and partly by impediments and objections frequently raised against what has been called "the meddling of unauthorised individuals".

I have elsewhere remarked upon certain defects in our national records of *vital* statistics, owing to—1, the want of accurate verification of original facts; 2, the want of properly-defined spheres for their collection and compilation; and 3, the neglect or omission of numerous particulars, which could be ascertained only by means of a national system of inquiry.

Our *social* statistics, for analogous reasons, are strikingly defective. Here the information obtained is still more dependent upon the particular views of local observers and reporters, and is therefore less reliable.

The collection of *agricultural* statistics also remains an unsolved problem; and will, probably, never be properly or satisfactorily performed, unless under scientific direction, connected with other objects of public utility, and divested of its merely fiscal aspect.

Thus, in the first place, a thorough physiological knowledge of the fauna and flora of any district would be an essential qualification for a Superintending Local Reporter, who ought to be competent to inquire into the occurrence of unusual or morbid conditions of any tribes or species of the vegetable kingdom; to note occasional developments, in air and water, of peculiar forms of insect or animalcular life; to investigate the nature of these phenomena, their connexions, and their influence upon vital or functional changes in the higher order of animals, and in man himself. The same officer would naturally be the chief registrar and compiler of *meteorological* and cosmical phenomena—a field of inquiry which is vastly increasing in extent and interest as regards the practical concerns of life, yet (if we except what is so well done at the Royal Observatory, and by the Meteorological Department of the Board of Trade) cultivated only in localities favoured by the casual residence of philosophical amateurs.

Some such local officer should also be competent to direct *geological* researches, with reference to social objects; as agriculture, drainage, water supply, building, etc.

Again, in the application of *chemistry* to local purposes, whether educational or practical, great necessity exists for highly scientific agents in official position. To determine the composition and qualities of different soils and waters in changing seasons and circumstances; to analyse manures and crops; to indicate the comparative advantages, test the purity, and detect the falsifications of articles sold or used for food and beverage; to ascertain the genuineness of medicines, and to reveal the presence of any poisonous or deleterious agents which may exist in manufactured articles or organic structures;—all these are indispensable duties for a highly qualified *public analyst and histologist*, who should be responsible, not so much to the inhabitants of the locality—*i. e.*, to its producers, manufacturers, and retail dealers—as to the nation in its collective capacity.

Here, then, Government may fairly step in to the aid of science on grounds of *public safety*. It would be easy to show how such an officer would be the most available and competent referee in those forensic inquiries which affect human life, health, and liberty, and which, as they are now prosecuted in this country, serve little more than to bring physical science into contempt, and its adepts into disrepute.

An independent public officer, of high scientific attainments, could alone be relied upon for accurate and trustworthy reports on the effects of various industrial occupations and commercial processes which are suspected to be injurious to the community, or to persons employed in them, especially in crowded populations. The same officer would naturally be the scientific adviser and assessor of local executive boards;* as the *Kreis-physicus* (a physicist rather than a physician) of the German States is to their provincial and district magistrates. An officer of this kind might also act as instructor of the people in matters which connect science with daily life and labour. The public chemical laboratory, with philosophical apparatus and mechanical or industrial models—for there should be such an institute in every district—should be open, under his superintendence, not only for the gratuitous instruction of the people, but for their personal protection, by affording them, also gratuitously, the means of detecting adulteration or decay in articles of daily use and consumption.

The regular statistical reports—which, as I have suggested, might be compiled by some such scientific officer—exhibiting the fluctuations of vital force in man, animals, and plants, under varying physical or climatic conditions, and in connexion with local customs, habits, and arrangements, should be printed and circulated for municipal and popular information in every district. All this could be done without fear, favour, or prejudice, *only* in so far as the required scientific agents be made independent of disturbing local influences. They should be "emancipated from all such interference as is calculated to obstruct the zealous performance of their duties" (See *Glasgow Report, supra cit.*, p. lxii, 1855).

The size and extent of the district in which such a professor or officer might act with advantage to the public, is a correlative question, which I have already discussed both in my *Essays on State Medicine*, and in my paper *On the Territorial Distribution of the Population*, read before Section F of the British Association, at its last meeting.

I do not say that in every district, of the extent suggested in that paper, one such scientific person would suffice as the *sole* authority; that is, as teacher, referee, inquirer, and reporter. On the contrary, I think it probable that the functions of the professor might often be advantageously separated from those of the investigator; and therefore that, in some places, *two* specially qualified person might be very judiciously appointed. It is also probable that certain technical inquiries might sometimes require a further, though perhaps temporary, division of labour. The civil engineer and the analytical chemist are of equal importance in public undertakings.

Moreover, a sufficient knowledge of physiology, as regards living forms generally,—of pathology, in the same wide signification,—of chemistry, theoretical and practical,—of geology,—of meteorology,—and of statistical processes and results,—might not always coexist in the same officer. But a general acquaintance with the natural sciences, official aptitude, power to call in technical aid, or to refer any disputed point to a metropolitan board, and liberty to accept the local co-operation of philanthropic persons more profoundly versed in specialities, are conditions which would render *one* scientific appointment (beside that of a local professor) more beneficial to the public than the creation, in the same place, of several scientific posts, which, from the very circumstance of their number, would of necessity be inadequately endowed.

The scientific offices should be "placed on a level, in respect to salary, with such other civil appointments as are an object of ambition to highly educated men." (See *Glasgow Report, loc. cit.*) By a national provision of this kind, inducements would be held out to students to acquire a knowledge of scientific truths; "and, after the period of pupilage has expired, to extend it, and turn it to useful account;" while "the whole body of competent men of science" would exert "a due influence over the determination of practical questions, dependent for their correct solution on an accurate knowledge of scientific principles." (*Ibid.*, p. xlviii.)

With regard to the power of appointment, we may be sure that extremely few local executive boards, as at present constituted, would be likely to select scientific agents of the highest qualifications; nor could such a right be fairly claimed by district authorities, if the cost were borne by the nation. No existing board would be so capable of determining these appointments as the "Board of Science", suggested in the *Glasgow Report of the Parliamentary Committee of the British Association;* although the recommendations of those local residents who are competent to form an opinion would of course have their due weight.

It is difficult to conceive a limit to the benefits which science, thus established and supported, might confer on the people. It would be difficult, I think, to point out any direction in which the state, by legislative sanction, could more materially aid the cultivation of science, than by connecting it with the improved administration of what we call "local self-government", and by enlisting it in the cause of a correct compilation of national and local statistics.

* "As assessors or advisers to executive boards, the services of scientific men would be highly valuable." (Glasgow Report of British Association, Parliamentary Committee, p. lvi, 1855.)

INFLAMMATORY ACTIONS, AND THEIR TREATMENT.

By C. Handfield Jones, M.B., F.R.S., Assistant-Physician to St. Mary's Hospital.

[*Concluded from page* 233.]

Quitting now the remedies for sthenic inflammation, let us turn to those which are appropriate to asthenic. The contrast between the two groups is full of instruction.

The influence of *nitric acid* in toning the vessels of the bronchial membrane when relaxed, as in asthenic catarrhal affections is very clear and positive. Râles with cough and expectoration that will not yield to antimony or ipecacuan, or which return when these medicines have been too long continued, disappear under its use. We cannot imagine it to act otherwise than by an impression on the nerves; taken into the blood, it must combine with a base, soda probably, and its action as a salt would surely be very different from that which we have just noticed. Its nervine influence is further attested by its remarkable efficacy in arresting the paroxysms of pertussis, as has been well shown by Dr. Gibbs.

That *quinine*, *strychnine*, and *arsenic*, are nerve toners, cannot, I think, be any matter of question. If malarious poison acts paralysingly and depressingly on the whole nervous system, if the fevers and congestions which it produces can be explained by our knowledge of the laws of action of the sympathetic nerves, then surely quinine, and in a less degree arsenic, which counteracts so powerfully this wide spread poison, must act also on the same system. It is matter of everyday experience that asthenic inflammatory processes, and fluxes proceeding from them, can be checked and arrested by the three above-named agents. The change effected by the skilful administration of arsenic in cases of skin disease appropriate for its use, is very striking and instructive. The abnormally increased heat, the hyperæmia, the serous exudation (taking a case of eczema or pemphigus), cease, and except some lingering congestion of the capillaries, the part returns to its healthy state. How very like this is to the effect of galvanising the upper end of the divided sympathetic nerve in the neck of an animal, as described by Bernard! It is clear that arsenic does not cure a skin eruption in virtue of some special relation it has for cutaneous tissue, because it will act very similarly on the intestinal mucous membrane, checking or arresting chronic diarrhœa or dysentery; as also on the uterus, restraining menorrhagia and leucorrhœa, according to Mr. Hunt and Dr. Locock. The great point necessary to be borne in mind in the use of these and all nerve tonics, is that they act also, or are liable to act, as tissue irritants; so that it may require much care and management to obtain the first action without the second. If, therefore, there exist any amount of sthenic inflammation (a point not by any means always easy to determine), these agents are quite inappropriate. Carbonate of ammonia seems to be the remedy of this class which has the least tendency to cause irritation of tissue, At least this is true in the case of the pulmonary organs.

Quinine and arsenic evince particularly their power as nerve tonics from their known good effects in all neuralgiæ; they seem to operate more on the sensory than on the motor nerves. The reverse is the case with strychnine; it serves us in paralysis of voluntary muscles, not depending on a central lesion, and in torpor of the intestinal muscular coats, as also, according to Dr. Vernon, in uterine inertia. I will presently allude to several other drugs which possess a like nerve toning influence more or less decidedly, but those now mentioned are the best exemplars.

A consideration of their action, and of their relation to the nervous system, strongly confirms the opinion that typical asthenic inflammation is chiefly dependent on palsy or weakening of the vaso-motor nerves of the part. This does not, of course, exclude the influence of a poison received into the blood as in some cases the cause of the paralysis; but while fully admitting this, it brings to our minds the very important fact, that the degree of power and tone of the nervous system very materially determines whether the poison produces its effects or not. On this it seems impossible to lay too much stress. How striking is the fact, that eight grains of quinine daily will enable a man to undergo exposure with impunity to the malaria of the west coast of Africa, which acts with such deadly effect on the unprotected. Yet, of necessity, the same poison must enter by respiration into the circulation of each. If two persons are exposed to the miasm of typhoid or typhus fever, there is considerably more likelihood of the one who is weakly and depressed being affected by it than the other who is in full tone and vigour. Yet both inhale the poison into their blood alike; only the one succumbs to it, the other resists it. In the case of malarious disorder, where the system has often suffered and retains the morbid impregnation, so that a slight cause reproduces the phenomena, what else avails to keep them in abeyance but raising and maintaining the tone and vigour of the system? The poison is there always, but it makes all the difference whether the resisting power be weak or strong. In the case of syphilitic disease, as already remarked, we find the same law holds true. Quite to the same effect are the instances of disease affecting a defeated army far more than a victorious one, and of the remarkable influence of *ennui* and disappointment in engendering disease, as of excitement and exhilaration in preventing it. (*Vide* p. 120, 121, of Mr. Martin's work.) Surely the conclusion from all this must be, that in the great majority of cases of disease, we are much rather to think of stilling perverted and excited action, and of imparting healthy tone where this is wanting, than of eliminating a poison from the system. According to the prevailing theory, we *ought* to cure an eczema, with its serous flux, by eliminating the (supposed) morbid element from the blood. In practice, we *do cure* it by toning the relaxed vessels; and well satisfied are we, as well as our patient, when we have done so. With a bronchial, gastric, intestinal, uterine flux, we deal in a like way; and there seems no reason to question the propriety of the practice. Certainly an eliminant treatment would have a very different result. Yet in many of these cases the existence of some *materies morbi* might be reasonably supposed. Influenza surely depends on the action of a poison on the system, yet it would not be very wise to treat a case by attempting to eliminate the morbid agent. The plan of treating cholera by castor oil professes to be based on the view of eliminating the morbid poison. Believing that it may be useful in certain cases, I think the mode of its operation is altogether different. It probably sets up a different kind of action in the gastro-intestinal mucous surface which supersedes that of cholera. This would be analogous to the treatment of purulent ophthalmia by nitrate of silver in substance applied to the inflamed conjunctiva, or that of gonorrhœa by injection of a strong solution of the same agent (gr. xv ad ℥i). The remedial action in these instances is by no means that of a mere astringent; it modifies the vitality of the affected tissue, to borrow an expression of Dr. Bennett's.

The following remarks respecting the action of some of our ordinary remedies may properly conclude this paper.

Opium may be regarded as a tissue sedative in general, not one of the nerve tissue only. As it "locks up the secretions" by staying the active function of their gland-cells, so it calms the excited state of an inflamed membrane, *e.g.*, in peritonitis, and stops the morbid attraction of blood thither. To do this effectually, however, it is essential that the force of the heart's contraction should be diminished by venesection, or otherwise. In an experiment I performed, thirty-three drops of liquor opii sedativus being taken in twenty-four hours, the result was that the whole quantity of urine was increased by four ounces, the acidity raised from 65 to 85, the urea diminished by 25·514 grains, and the uric acid by 4·6 grains. The specific gravity fell from 1028 to 1020. The stools were clayey. Opium thus evidently checks waste, and does so by calming an over-excited state of the nervous and other tissues. Under its influence fatigue of body or mind can be better endured, because the tissues have more stability, and disintegrate less readily.

Belladonna, unquestionably a nerve sedative, may perhaps be regarded as a sedative to other tissues also. In its dilating the iris, and diminishing the contraction of other sphincters, in its calming an excited action of the heart, and arresting the secretion of the mammary gland, we have instances of its power as a local application, which are scarcely to be referred to its influence upon the nerves. (Ludwig's opinion, quoted by Dr. Harley in the *Edinburgh Monthly Medical Journal*, February 1857.)

Digitalis appears to act as a tonic or stimulant to vaso-motor nerves. It stills the action of the heart, probably by a stimulating operation on the pneumogastric, or the medulla oblongata, as in Weber's experiment of passing a galvanic current through the latter centre. If this be carried too far, the heart's action is arrested altogether. Like other nerve tonics, it acts best in states of debility, and "seldom succeeds in men of great natural strength, of tense fibre, of warm skin, of florid complexion, or those with a tight and cordy pulse." It also acts as a vessel toner in the arrest of menorrhagia and

some other hæmorrhages. Its diuretic action must be referred to a stimulant operation upon the kidney, in which it resembles the following.

Oleum Terebinthinæ is known to be effectual in gastric and renal hæmorrhage. It has been found very useful in checking the black vomit of yellow fever. I have seen it arrest the hæmorrhagic renal flux, called chylous urine, after gallic acid and tincture of sesquichloride of iron had failed. It is of efficacy also in asthenic iritis, and in some bronchial fluxes. Its operation on the nervous system is attested by the unquestionable benefit which has resulted from its use in sciatica and other neuralgias, in chronic rheumatism, and in epilepsy. (Watson's *Practice of Medicine*, vol. i, p. 636.) These I do not view as isolated facts, but consider oil of turpentine as a nervine stimulant, operating both on the cerebro-spinal and sympathetic systems. Like many other remedies of the same class, it is a tissue-irritant; and it is necessary to manage well to obtain the first action without the second.

Balsam of Copaiba may be mentioned as a remedy of very similar nature. In vesical catarrh "it robs the urine of its mucus," and in gastric hæmorrhage it has been found to act as an efficient styptic; Dr. Churchill has derived benefit from it in cases of uterine catarrh. I would say once for all that I should never expect from this or any other nervine remedy constant results. It seems impossible to ascertain accurately the conditions of success; in the greater number of cases by far the nerves we wish to influence are quite removed from all observation; and if we had them directly under our eyes we have no means of estimating the state of the nerve force, or the special idiosyncrasy of the individual. It may be easy to see what *kind* of remedy is wanted in a given case, but it may be very difficult to find that which is exactly appropriate.

Ergot seems to possess a decided influence over organic muscular fibre. It powerfully contracts the walls of the developed uterus; it is recorded to have arrested epistaxes and other hæmorrhages (Dr. Walshe praises it in epistaxis); leucorrhœal discharges are controlled by it; and when taken for a length of time, as in the case of peasants feeding on diseased rye, it causes such contraction of the arteries that the limbs pass into the state of dry gangrene. This influence may certainly be a direct one upon the muscular tissue, to which it is conveyed by the blood; it is, however, worth observing that ergot does produce marked effects on the nervous system. When taken in the food in quantity it very commonly causes a kind of intoxication, said not to be disagreeable; and as a remedial agent it is reported to have cured paraplegia and paralysis of the bladder.

Iron is ranked by Trousseau (and justly) as an analeptic, like oleum morrhuæ, ministering to the repair of blood and tissue. But it is also eminently a nerve tonic, a powerful means of combating neuralgiæ and neuroses of the cerebro-spinal system, as well as of restoring the power of the sympathetic. It is needless to cite any instances of its beneficial action on the cerebro-spinal nerves; but some of its influence on the sympathetic are necessary for my purpose. Liquor ferri pernitratis is highly spoken of by Dr. Graves as of much avail in chronic diarrhœa. Tincture of sesquichloride of iron has proved very beneficial in cases of erysipelas, and of bloody and albuminous urine connected with scarlatina. Cruveilhier regards iron as a specific for engorged conditions of the spleen; and the experience of Indian physicians is also in favour of its decided efficacy. Renal hæmorrhage and vesical have been arrested by the use of tincture of sesquichloride of iron. Preparations of iron are found to check bronchial fluxes, uterine leucorrhœa, and passive menorrhagia. These instances show the influence of iron over the vascular system; and when they are viewed with reference to its positive effects on the cerebro-spinal nerves, scarce any doubt can exist that it is by its energising the sympathetic plexuses that the contractility of the arterial walls is again brought into play.

The *modus operandi* of *astringents* requires some notice, as they approach in their effects very nearly to the *tonics*. It cannot, I think, be affirmed so decidedly of them that they act through the nervous system; yet neither can I agree with those who regard them as affecting living in the same way almost as dead tissue. I will briefly refer to the known effects of some of this class.

Sulphuric acid is of positive efficacy in the following conditions. It checks profuse sweats; it relieves itching and tingling of the skin in papular eruptions; it arrests profuse serous diarrhœa. In the two first of these cases it surely does not act by a mere physical influence, and in the latter it seems quite open to suppose the same. Considering its relation to nitric acid (so unquestionably a nerve tonic), and its irritant local action, I incline to think it must also be ranked as a nerve tonic.

Alum, besides acting as a local astringent, has a positive efficacy in lead colic, and in various hæmorrhages and fluxes. Its action in colic, and intestinal neuralgia, approximates it certainly to iron and other nerve tonics.

Acetate of lead is well known as of efficacy in various hæmorrhages and fluxes, the bronchial perhaps more especially. The positive irritant influence of lead on the abdominal nerves in colic inclines me to think that it is by toning the vaso-motor that it checks hæmorrhagic and other exudations. It would not form a valid objection to this view that its more prolonged operation was palsying to certain cerebro-spinal nerves; in fact, even on the brain it sometimes acts as an irritant, producing convulsions. The great recommendation of lead seems to be, that while it tones vaso-motor nerves, it exerts a sedative action on inflamed tissues, and might well have been noticed among that group of remedies. In this it differs from all the stronger nerve tonics.

Tannin, and *Gallic acid*. Although Dr. Bayes states that an overdose of the latter causes the pulse to become small and wiry, the face to grow pale, and a whizzing sound in the ears (symptoms which appear to indicate an affection of the brain and vaso-motor nerves), yet, as I am not aware of any positive proof that the above agents act on the nervous system in any special and direct manner, I do not include them in the list of nerve tonics. Their action is probably on the homogeneous wall of the capillaries, rendering it less permeable to the liquor sanguinis. Simple and structureless as this wall appears on the most careful examination, it must yet be possessed of some remarkable qualities. In most situations it allows (in health) a certain amount of albuminous plasma to transude its texture, just what is needed for the nutrition of the muscle or other tissue to which it belongs. In the Malpighian capsules it allows a large quantity of watery fluid to drain off absolutely deprived of albumen, but probably containing some saline matter. In the air-cells of the lungs it merely allows a little moisture to exude, which is soon converted into vapour. This peculiar filtering power is, however, easily disturbed; an increased strain upon the delicate structure causes the effusion of albuminous and fibrinous fluid, it may be in large quantity. The escape of blood globules in greater or less amount is usually thought to imply rupture, and it seems scarce possible it should be otherwise. Yet perhaps the established fact of copious hæmorrhage occurring without detectable breach of surface may justify us in concluding that the capillary wall must be capable of undergoing such alteration in its composition as to allow shaped corpuscles to pass through it. There is a good deal of resemblance between the capillary membrane and fibrinous films; and it is very much in states where fibrine is deficient or imperfectly formed that hæmorrhages are apt to take place. In such conditions, I think it by no means improbable that the homogeneous capillary membrane loses its due consistence, and becomes semi-liquid, like soft jelly; so that, without actually tearing, it yet opposes small let or hindrance to the escape of the blood within the tube. Less degrees of the same condition would probably allow the escape of albuminous and fibrinous fluid. To such, which are almost always associated with deficient contractility of the arterial coats, I should think tannin and gallic acid especially appropriate. It is, moreover, easily comprehensible on this view how these remedies should often fail in arresting hæmorrhage; for if the small arteries are gaping wide, and flushing the part copiously with blood, it would be impossible for the weak walls of the capillaries to gather strength to withstand the strain. It is, therefore, highly rational practice to conjoin strychnia or quinine with gallic or tannic acid, so as to accomplish both objects. On the other hand it might be useless to tone the small arteries, if the capillaries remained very lax and weak.

In the foregoing observations I have merely attempted to gather up the general bearing of a number of well-known facts, without advancing anything new. Evidence of this kind, though less pretending to exactness than the determinations of the microscope and balance, has yet a value of its own, and is more available for the exigencies of practice. I will only add one remark in conclusion. Our remedies act on the vital qualities of the tissues; and if these are greatly enfeebled and depressed, but little is to be expected from them. Rest, fresh air, good food, are the best restorers of natural endowments; after these, if need be, let drugs be employed. Is this as much thought of as it should be?

CASE OF BRONZED SKIN, ASSOCIATED WITH DISEASE OF THE SUPRARENAL CAPSULES.

By JOHN KENT SPENDER, Esq., Surgeon to the Eastern Dispensary, Bath.

[*Read before the Bath and Bristol Branch, February 19th*, 1857.]

ON the evening of the 3rd of October, 1856, I was called to visit a female, aged 21, unmarried. I found her in bed, apparently very ill; and inquiry of her relatives elicited the following history of her complaint.

For nearly a year she had experienced an increasing sense of debility, which began without any obvious cause. There was nothing in her occupation which accounted for it; and her habits of life were regular and industrious. Menstruation had always been normal, and there was no record of leucorrhœa or of diarrhœa. Progressive emaciation had accompanied the weakness, and a corresponding loss of animal heat; so that, although originally of good development, she had become exceedingly thin, and had felt very cold even during the excessive heat of last summer. There had been great lassitude, and hardly any appetite for food. Within the last three months, both herself and her friends had noticed a muddiness of skin on the face and hands; and, on the dorsal aspect of the latter, this muddiness had increased to such an extent that it might have been imagined that she had exchanged limbs with a negress. The tint of the face was of a much less decided character. There was no history of any pulmonary or cardiac disease; and the surviving members of her family were in good health.

The first interview I had with my patient was by candlelight, and her appearance indicated nothing beyond aggravated spanæmia. It is not surprising that I should have overlooked, under such circumstances, the peculiar colour of the face; and the hands I did not particularly look at. The only thing which struck me was the extent and the deep hue of the areola round the eyes. I made a careful physical examination of the thoracic organs, but failed to discover anything abnormal beyond the usual anæmic murmurs. An examination of the abdomen led to only a negative result. No pain was complained of, but much nausea whenever she raised herself in bed; and, in the same posture, she described herself as experiencing a weight in the right hypochondriac region. The bowels were costive; but this fact was explicable by the small amount of nourishment taken. The urine was natural; the pulse was 80; the respirations 19.

My patient had previously been under medical treatment, and, as far as I could learn, of a judicious kind. I was puzzled why she should have derived no permanent benefit from it, but I really could not see anything to interfere with a diagnosis of simple aggravated anæmia; and I offered rather an unguarded prognosis that she would probably be quite well in two or three weeks time. I prescribed a mixture of tincture of sesquichloride of iron with tincture of hyoscyamus, a dose after each meal; and directed that food should be given in small quantities at frequent intervals.

October 4th. I visited my patient by daylight, and I could not help noticing the dark earthy tint of her face and hands. No other portion of the surface was affected in the same way: the skin every where else was perfectly clear, and free from abnormal stain of any kind. However, the real nature of the case did not then occur to me. The medicine had caused a relaxation of the bowels, and therefore the citrate of iron was substituted for the sesquichloride; and an opiate pill ordered to be given at bedtime.

A decided improvement became manifest during the next few days, so that she was able to leave her bed and come down stairs, still preserving the recumbent posture on a sofa. On the 10th of October, the feeling of weight in the right hypochondriac region increased to absolute pain. I made another physical examination of the abdomen, and the result was, that deep percussion elicited a dull note over the seat of pain, and palpation imparted the sense of a soft solid, deep in the abdominal cavity. Although the strength had increased, the emaciation progressively continued; and, with a view to remedy this, I recommended the administration of the cod-liver oil. To this, however, great objection was offered, the bare thought of taking an oily substance appearing to create nausea.

October 13th. A retrograde step had already commenced. The citrate of iron mixture could no longer be retained; the bowels had become confined; the indescribable sense of powerlessness had completely returned; and my patient went back to her bed, from which she never rose again.

During the preceding week, I had been perusing Dr. Addison's celebrated monograph on *Diseases of the Suprarenal Capsules*, as well as a review of that work in the then current number of the *British and Foreign Medico-Chirurgical Review*. I now began to suspect the real nature of the malady; and I at once communicated the possibilities and probabilities of the case to the patient's friends. They were astonished at the altered tone of my prognosis, and did not at all appreciate the reasons I gave for it. It was agreed, however, that further advice should be obtained.

October 15th. Mr. Norman met me in consultation. It was clear that we had to deal with the results of a special dyscrasia, those results being manifested in a serious lesion of the nutritive processes. The data on which we had to form an opinion were principally subjective: these were the extreme lassitude and debility, the constant nausea and anorexia, the pain and the weight in the right hypochondrium, the depression of spirits, and the loss of memory. The great objective phenomena were two in number—the emaciation, and the bronzed colour of the face and hands. Our diagnosis appeared to be limited to the alternative of scrofulous degeneration of the intestinal glands, or disease of the suprarenal capsules, attended by its well known cutaneous discolorment. If the case had come under our notice some years ago, probably the former of these contingencies would have been the only one to present itself; but, for obvious reasons, our opinion now decidedly inclined to the latter.

Mr. Norman strongly urged the administration of cod-liver oil, to which the patient reluctantly assented. Mr. Norman also suggested that a couple of grains of blue pill should be taken once or twice a week, not only with the view of maintaining a regular action of the bowels, but also to assist the functions of the liver; for the possibility of biliary toxæmia had occurred to our minds as tending to confuse the other elements of diagnosis; although such an hypothesis would not account for the emaciation, and was almost certainly negatived by the clear pearly hue of the conjunctiva.

Under the plan of treatment above laid down, and for some time faithfully carried out, the tendency to emaciation was certainly arrested, and the strength appeared to be somewhat improved. A blister was subsequently applied to the right hypochondrium, in order to relieve the local pain.

Things remained very much *in statu quo* until the middle of November. Disgust of the cod-liver oil was now experienced, and consequently its use was abandoned; and so complete was the repugnance to every kind of food, that beef-tea, in very limited quantities, was the only article of diet which we could persuade her to accept. The sense of hunger was altogether suspended, and the withdrawal of the demand for nourishment was apparently the proximate cause of that wasting process which now continued uninterruptedly until death. And yet the secretions generally were properly carried on; there was no cough, and no symptom referrible to the pulmonary organs; the sounds of the heart were sharp and clear; and, with the exception of the faculty of memory, the intellectual powers were unimpaired.

For a short time, I gave her quinine, with a slight improvement of the appetite; but, at the beginning of December, she firmly refused to take medicine of any kind. A week afterwards, she would see nobody beyond her own family; and on Friday, December 19th, she quietly died away, as if she had only fallen asleep.

POST MORTEM EXAMINATION, December 21st, fifty-fours after death. The body was greatly wasted; the breasts very much atrophied; there was very little adipose tissue anywhere; and the muscular structures were flabby and attenuated. The skin of the face was nearly as brown as a mulatto: the exact hue it would be difficult to describe, but it was duller and less intense than bronze, and resembled more than anything else the tint of the lighter portions of a photographic impression. The colour was very marked when contrasted with the integument of the thorax and abdomen, or with any linen article of clothing. The skin of the dorsal aspect of the hand was exceedingly dark, the knuckles being particularly so: here the word "bronze" most fitly conveys the real tint, because it really possessed the shining properties of that alloy. The popular term "brown jaundice" is sometimes a very appropriate one in these cases.

The cranium was not examined. The viscera of the thorax were anatomically healthy, but very bloodless: the heart was exceedingly small, and contained several fibrinous coagula. The stomach was distended with gas: it contained a thin

yellowish fluid, but its coats were in all respects free from disease. Nothing abnormal could be detected in the large and small intestines; the spleen and the liver were of the natural size. When the liver was being removed, I found that the right kidney was dragged out with it; the fact being that an adhesion had taken place between the contiguous peritoneal layers of the posterior lobe of the liver and of the suprarenal capsule. This circumstance may adequately account for the constant pain in the right hypochondriac region during life; and the sense of weight also complained of was evidently caused by the entire mass unduly stretching the ligaments by which the liver is attached to the diaphragm. A slow process of adhesive inflammatory action had probably been going on for some time: the connection between the two organs was of the most intimate kind, and the knife was required to separate them. The right suprarenal capsule was very large: the left scarcely exceeded the normal size, and was unadherent to adjacent viscera. Purulent matter exuded from both glands when a section was made through them: and a number of little miliary bodies was visible to the naked eye. My friend, Dr. Martyn, of Bristol, has been kind enough to make a careful examination of the diseased organs. His report is as follows:—"*Left suprarenal capsule.* Preservation good, colour reddish-yellow, surface uneven: weight 75 grains. Tears readily, showing rough yellowish-white surfaces, covered with creamy fluid. Consists of a thickened tunic, within which are fibrous septa, forming meshes in which cheesy masses lie loosely surrounded by creamy fluid. *Microscopic appearance.* (*a*) Irregularly roundish nuclear corpuscles, containing fatty granules (often to half the entire cell-contents). (*b*) Parent-cells containing (*a*). (*c*) Proteine granules. (*d*) Large free granules of fat. (*e*) Fusiform cells, also containing fat. These are derived from the septa. The right suprarenal body exhibited a similar condition. *Kidney* pale. From the appearances above-mentioned, and from the action of glycerine, acetic acid, and ether, I conclude that the specimen is one of yellow tubercle in an advanced stage of degenerative softening."

The specimen has been deposited in the museum attached to the Bristol Medical School.

Remarks. On looking through a valuable series of cases in the *Medical Times and Gazette*, illustrative of disease of the suprarenal capsules, I find that there are three symptoms more commonly present than any others. These are debility, bronzed skin, and emaciation. I have enumerated them in the order of frequency. The *debility* appears to exist always. It indicates the development of a special dyscrasia, characterised by a grave error in the blood-forming process, and consequent prostration of the vital powers. The dyscrasia is one which probably has some affinity with idiopathic anæmia, with chlorosis, or with that constitutional state which precedes the local deposit of tubercle. It is impossible in all cases to define its cause: but it is certain that some mental derangement or shock has had a great deal to do with many of the cases of this disease which have been published. Solidists and humoralists may here find a capital debating ground: for the inquiry is naturally suggested, is the disease of the blood the cause of the neurosis, or the neurosis the cause of the blood-disease?

Next let me advert to the *bronzed skin*. I find two apparently authentic cases on record in which bronzing of the skin was unaccompanied by any noticeable changes in the suprarenal capsules. But these are only two cases out of a considerable number in which the disease of the glands has been successfully diagnosed during life from the cutaneous discoloration. Partial disease of the capsules has been detected in several instances without any corresponding bronzing; but I believe that not a single case has been published in which total destruction of the capsules has existed, without manifest discoloration of the integuments also. Hence, as the *British and Foreign Reviewer* remarks, the cutaneous bronzing may be dependent upon the capsular affection, but the converse of this proposition cannot for a moment be entertained. But while I agree with the Reviewer in thinking that the condition of the integument is almost absolutely diagnostic of disease of the capsules, I think he too hastily concludes that the latter is the *cause* of the former. We must know a great deal more than we do now about the physiology of the ductless glands, before we venture to pronounce so decisively on the phenomena of their pathology.

Emaciation is a symptom not so frequently observed, and in many cases has been entirely absent. It is easily explained, whenever it exists, by the depraved condition of the blood, and by the altered nerve-tone resulting therefrom. Nutrition must be gravely interfered with by such primary elements of disease.

The case which I have related affords a marked illustration of the three great symptoms. The debility and emaciation existed in an extreme degree; but the bronzing was strictly limited to those portions of the skin habitually exposed to the light, and therefore looked like an aggravated form of sunburntness.

Dr. Addison's opinion as to the hopelessness of the prognosis appears to be confirmed by every fresh case which is published. The treatment is unsatisfactory in every sense of the word: nerve-tonics and blood-tonics are equally useless; and perhaps we shall have to await the discovery of a new specific before being able to announce our ability to control the progress of this singular disease.

An account of the structural anatomy of the suprarenal capsules, by Kölliker, is to be found in the *Medical Times and Gazette*, vol. ii, for 1855. M. Brown-Séquard's investigations in their physiology show that these bodies have a very important part to play in the animal economy—a part which, if omitted, must lead to fatal results. (*Arch. Générales de Med.*, Oct. and Nov. 1856, quoted in Ranking's *Abstract*, Jan. 1857.) The substance of M. B.-Séquard's observations is, that (*a*) the capsules are very sensitive. (*b*) As age advances, the capsules are found to gain considerably both in weight and in volume; and hence it appears that these organs are not exclusively related to embryonic life. (*c*) Extirpation of both capsules destroys life with as much certainty, and with greater rapidity than extirpation of the kidneys. The extirpation of a single organ was invariably fatal. After removal of both capsules, the following phenomena were noticed: feebleness, gradually passing to extreme prostration; a respiration first quickened, then retarded, and lastly irregular and spasmodic; a quick and weakened pulse; gradual diminution of animal heat; and lastly, vertigo, convulsions in various forms, and occasionally coma. It would thus appear that the suprarenal capsules are essential to life, and that their removal or disorganisation may lead partly to some injurious alteration in the blood, and partly to some injurious operation on the nervous system.

CASE OF WOUND OF KIDNEY: RECOVERY.

By J. Johnston, M.B.Lond.

[*Read before the Birmingham and Midland Counties Branch, February 12th*, 1857.]

On December 24th, 1855, at 10 P.M., I was hastily summoned to attend William Hyde, aged 32, who had been stabbed in a quarrel. When I arrived at the public house at which he lay, I found him in a state of collapse from the great loss of blood; the pulse hardly perceptible; vomiting was continuous, with hiccup. He complained of severe but spasmodic pain in the groin, where, he said, he had been stabbed with a carving knife. I therefore examined the groin: there was no wound, but a spasmodic retraction of the testicle. Having turned him on to his side, I found an incised wound, one inch and a half in length, on the right side of the spinal column, and about two and a half inches above the posterior crest of the ilium. Considerable hæmorrhage was still taking place, and he said that the knife had broken in his back. Having sent the policeman to find the broken knife, during his absence I assiduously applied cold water to the lumbar region, and gave the patient some brandy and cold water, with forty drops of tincture of opium. The policeman not being able to recover the knife, I thought it advisable to pass my finger into the wound, to probe for any broken piece. My finger passed upwards and inwards, touching the transverse process of the third lumbar vertebra, and about an inch above this entered the peritoneal cavity. The knife was afterwards found, unbroken, but bent about three-fourths of an inch from the point: it was eight and a half inches in length, and had been driven in up to the haft. I continued the cold application. A magistrate having arrived, the patient's deposition was taken, as I did not think that he could rally. Warmth was applied to the feet. Gallic acid in five-grain doses, with a fourth of a grain of opium, were given every twenty minutes, for three doses, and afterwards repeated every hour, with occasional doses of cold brandy and water. He chiefly complained of retraction and pain in the testicle; this was relieved by an embrocation of olive oil and tincture of opium in equal parts. About half an hour after my arrival, he expressed a desire to pass his urine, and then passed by the

urethra about a pint of blood. This was repeated three or four times during the night, my assistant remaining with him.

December 25th. He had slightly rallied. The treatment was continued.

December 26th. Hiccup continued; this was relieved by bits of ice. He still complained of pain in the groin. Gallic acid, with hydrargyrum cum cretâ, were given three times a day.

December 27th. He continues very much the same. I ordered beef-tea and brandy to be continued. The urine was albuminous.

December 28th. The bowels not having been opened, I ordered half an ounce of castor oil, and this to be repeated in three hours. As he complained of a general pain all over the abdomen, and tympanitis, a linseed poultice was applied, and increased doses of the hydrargyrum cum cretâ with opium. The gallic acid was omitted. Ice was continually given; this relieved the hiccup and vomiting, which had reappeared. By these means, the pain over the abdomen was relieved; and, without any other severe symptoms, the wound gradually healed; and, on the 14th of January, he was able to be removed to his own home—a distance of nearly half a mile. I still continued to visit and watch the case daily.

January 21st. I perceived, for the first time, a slight fulness over the wounded part, at about the situation of the internal opening of the wound; this gradually enlarged, without much pain. I thought that, in all probability, it was a collection of pus, the deep parts not having united so soon as the external parts. No pain was complained of, only the fulness; and, as Nature had done so much for my patient, I thought that I would leave the abscess to her care also, unless urgent symptoms should arise.

January 25th. On examining his urine under the microscope, pus-globules were found, with exudation cells. I therefore thought that it would be advisable to open the abscess, for fear of mischief by pressure upon the kidney.

January 26th. I made a valvular opening into the tumour, which had now reached the size of a small child's head. About a pint of urine immediately escaped, loaded with phosphate and a little pus. I carefully closed the opening, before the tumour was quite empty, with a compress and bandage; and, as he was very faint, and vomiting came on, I gave him an opiate, with a full dose of castor oil.

January 27th. I again opened the valve, and allowed a quantity of clear urine to escape; and, as there was great tenderness over the whole of the abdomen, I diminished his food, gave small doses of calomel and opium, and applied linseed poultices over the bowels. By these means, the thirst and sickness were relieved; and, on the next morning (Jan. 28th), I allowed the sac to empty itself thoroughly; its contents, as before, being clear urine, of strong smell, and with a little pus settling to the bottom of the cup. The external opening very soon healed, and I had to reopen it and pass a small female catheter up a passage extending upwards and inwards for about three inches, where there seemed to be a small sac. This I repeated night and morning for nine or ten days, when, as the secretions had gradually diminished, I merely applied a bandage with small pledgets of lint. The man has had no relapse since then. He enjoys life, and can eat and drink heartily of ale and spirits, without any unpleasant after consequences in the kidney. He has decidedly grown much fatter since the accident than ever he was prior to it.

LIQUOR SODÆ CHLORINATÆ AS A LOCAL APPLICATION IN SMALL-POX.

By John Gabb, Esq., Bewdley.

I have found a weak solution of the liquor sodæ chlorinatæ so beneficial in the affection of the mouth and throat, in cases of small pox, that its efficiency cannot be too widely known. It may have been used by others; but, if so, I have not seen any account of it. In each case in which I have employed it, the effect has been extraordinary: one washing of the mouth and gargling of the throat has restored the patient to comfort, and ability to speak or swallow without difficulty. The strength I have used has been a drachm to half a pint of water. Applied to the skin, it has had the effect of allaying the troublesome itching; and I think it not unlikely that a much stronger solution, applied in the earlier stage of the eruption, might be as efficient in preventing pitting as some other remedies which have been recommended, whilst at the same time it could be more easily used.

Finding the solution so useful in allaying the itching of small-pox, I gave an old woman, aged 86, who had been for more than twelve months tormented with pruritus, and had tried various remedies without effect, the same to use as a lotion. In a few days she came for more, and said she had never used anything that gave her so much relief.

Gulstonian Lectures:

on

DIABETES AND SACCHARINE CONDITIONS OF THE URINE.

Delivered at the Royal College of Physicians, February 25th, 27th, and March 4th, 1857.

By Alfred B. Garrod, M.D., Fellow of the Royal College of Physicians; Professor of Materia Medica, Therapeutics, and Clinical Medicine, at University College; and Physician to the Hospital.

Lecture I.

Mr. President and Gentlemen,—Honoured by being selected by the College to deliver the Gulstonian Lectures of the present year, I was at first a little perplexed to find a subject with which I could presume to occupy the time of such an audience, or upon which I could hope to throw any additional light. On further consideration, however, finding that I had met with many cases of disease accompanied by saccharine urine, some presenting all the phenomena which attend true diabetes, others exhibiting symptoms but little marked, and such as might be readily overlooked, it occurred to me that I might possibly be able in these lectures to lay before you, in a small compass, the present state of our knowledge on this important subject, and endeavour to show what advances have been made of late in our progress towards unraveling the mystery which has so long enveloped this most obscure affection. It might naturally have been expected that the discoveries of modern science, and especially the rapid strides of organic chemistry, would ere this have been enabled to solve at least some of the difficulties. Chemistry has indeed shown the *nature* of the morbid product in this disease, its properties, composition, and the changes it undergoes; how it may be imitated, and so forth; but we have signally failed, by the aid of this science, in obtaining a clue to the real nature of the alterations which constitute the essence of this disease.

Although I fear we shall have to confess that our knowledge is still very imperfect, yet at the same time there are, I think, grounds for encouragement; for, if we do not know at present what diabetes really *is*, we have of late been able to affirm more confidently what it is *not;* and this alone indicates considerable progress. Besides this, recent investigations upon the so called glycogenesis, or sugar-forming function in the animal economy, appear to throw glimpses of light which may probably one day remove much of the obscurity which has hitherto prevailed. In the present lectures, it is my intention to limit the term diabetes to that form of disease in which the secretion of urine is not only excessive in quantity, but in which also its quality is altered from the presence of sugar—a principle which is absent in the healthy secretion. Other forms of disease, in which the urine is excessive, but where no saccharine matter exists, I should be disposed to follow the custom of many high authorities, and class under the head of excessive diuresis. Some difficulties, however, have occasionally arisen from the confusing together of many very different diseases under the general head of diabetes.

Saccharine diabetes has received many synonyms; sometimes it is called diabetes mellitus, to distinguish it from simple excessive diuresis, often named diabetes insipidus; it has been called also paruria mellita and melituria; and recently, on account of the supposed identity of diabetic sugar and glucose or starch sugar, it has been named by French physicians glucosuria—a term now often employed in this country.

The ancients were totally unacquainted with the morbid condition of the urine which is pathognomonic of this disease, and hence grouped together indifferently all affections in which a great flow of urine was the prominent symptom. It was only in 1684 that Willis first called attention to the curious and im-

portant fact, that the urine in many cases of diabetes appeared to contain a saccharine principle. For a long time, little notice was taken of this discovery; and any progress which has been made in the investigation of the symptoms, nature, and treatment of this affection, date from within the last half-century.

The present lecture I shall devote chiefly to the examination of the various symptoms exhibited by patients labouring under a saccharine condition of the urine. In the remaining lectures, I shall discuss the various theories advanced as to the nature of the disease, and speak more fully of its progress and causes; and point out what value may be placed upon the different remedies and plans of treatment which have been proposed for its mitigation or cure.

From an investigation into the history of many cases of this affection, it appears to me that diabetes frequently commences as an acute disease, and may within a very short time, even a few days, assume all its intensity. In my note books there are records of several cases, more or less to the following effect. A person in good health, without having had any increased desire to pass water, any thirst or dryness of skin, becomes exposed to severe and prolonged cold, sometimes after having indulged rather freely in alcoholic liquors; in a day or so, perhaps even the next day, he experiences a peculiar dryness of the mouth, a want of the usual perspiration, and notices likewise that the amount of his urine is very much augmented; and from that time he becomes a confirmed diabetic subject. Such forms of the disease may be properly termed *acute diabetes*. There are, on the other hand, many who, from their history, would appear to have been suffering from a saccharine condition of the urine for several years before the increase of the renal secretion attracted attention, or the nature of the disease became correctly ascertained. As an example of this form, I may mention that of a gentleman under my care at the present time, who had symptoms evidently most closely connected with a saccharine condition of the urine for more than eight years before the character of the affection was known, and in whom the diuresis was never sufficiently developed to lead him to suspect himself a diabetic subject. When the disease assumes this form, it may be classed under the head of *chronic diabetes*, as may also other cases of saccharine urine where the augmented secretion never becomes a prominent symptom: I say *prominent* symptom, because, in all instances in which I have been able to ascertain the total amount of urine in the twenty-four hours, a somewhat abnormal quantity has been eliminated. By the aid of properly directed dietetic and medicinal treatment, the acute affection not unfrequently merges into a chronic condition, with symptoms closely resembling those to which I have just alluded.

I shall at first point out the most important symptoms which occur in these different forms of diabetes, comparing the results obtained from my own observation with those arrived at by others, and endeavour to show what are the essential phenomena, and such as are merely accidental, depending on complications having no necessary connexion with the disease under consideration.

As the increased flow of urine, and the alteration in the character of that secretion, are among the most constant and important changes in this disease—alterations from which, indeed, its name is derived—I shall at once direct your attention to this point.

The urine in diabetes may, as far as appearance is concerned, exactly resemble the healthy secretion: it may, however, and generally does, differ considerably from it. When the quantity is large, it is very pale, sometimes almost devoid of colour, transparent, free from deposits; with an odour which has been compared by Dr. Prout to that of hay or milk; by Dr. Watson to that of an apple-chamber. To me the odour appears more like that of whey; but, as such urine soon undergoes changes from fermentation, the smell varies much with the time which has elapsed since its elimination. Any peculiarity of odour which diabetic urine may possess is confined to such as contain but little of the ordinary urinary constituents. In the acute affections, when, by appropriate treatment, etc., the amount has been brought down to within 100 fluid ounces per diem, also in the chronic forms of the disease, although the urine may be very rich in sugar, I have not been able to appreciate any peculiarity of odour. The flavour of diabetic urine is distinctly sweet. This, again, is best observed when there is much deficiency of those constituents on which the ordinary taste depends.

The quantity of the urine passed by diabetic patients is very variable. Enormous amounts have been mentioned, as much as 200 pints per diem, on the authority of an Italian named Fonseca; but this is somewhat doubtful. Trustworthy observations have established the fact that as much as 30 and 40 pints have occasionally been voided. I have myself known as many as 19 imperial pints passed during one night; but, as far as my experience goes, these excessive quantities are not common when patients are in favourable conditions as to temperature, and when some slight restriction is placed on the nature of the liquids taken. It is only when the patients have been exposed to the inclemencies of the weather, and drinking enormously of malt or other alcoholic liquors, that I have observed such excessive diuresis. In the hospital, where the temperature of the wards has been nearly uniform, and water or toast and water the beverage allowed, the quantity of urine passed in twenty-four hours by patients under my care has seldom exceeded 20 pints, or 400 fluid ounces; generally it has been much under this quantity, as from 10 to 12 pints; and this before any dietetic or medicinal treatment has been enjoined, with the exception of the restraint in alcoholic liquors. The following table gives the results obtained from eight cases before the commencement of treatment, the patients being allowed the ordinary full or extra full diet of the hospital, with an occasional addition to the food when the appetite was ravenous.

	Quantity.	Specific gravity.
E. H., a young woman . .	120 to 132 fluid oz.	1040 to 1042
H. W., a young man . . .	232 to 268 „	1037 to 1040
E. H., a middle age . . .	179 to 212 „	1030 to 1036
P. C., a middle age man . .	168 to 390 „	1032 to 1041
H. B., a middle age woman .	180 to 256 „	1032 to 1040
C. H., a youth	168 to 234 „	1037 to 1044
J. S., a young man . . .	162 to 296 „	1047 to 1057
R. B., a young man . . .	148 to 280 „	1040 to 1044
C. M., a girl	210 to 300 „	1046 to 1050

Sometimes the quantity of fluid thrown out in a given time exceeds in weight the total quantity of the ingesta. This has been observed by Mr. McGregor, and Drs. Bardsley and Christison. The excess must then be made up by cutaneous absorption, as proved by Dr. Watson to have occurred in a boy suffering from excessive diuresis, or the so called diabetes insipidus. In health, we may fairly assume that the twenty-four hours average in this country is about 45 fluid ounces. Diabetic or saccharine urine is almost always heavier, or has an increased density over that of the same fluid in health, taking the average specific gravity during the twenty-four hours at 1020 (distilled water being 1000); the urine in diabetes is generally found to range from 1030 to 1050, as the above table shows. Many exceptions, however, are found; sometimes the density is as high as 1060; I have once known it to be a little above this. On the other hand, saccharine urine has been found by Dr. Prout as low as 1015; by Dr. Christison, 1021. About a month since, the urine of one of my diabetic patients had the specific gravity 1017, and yet contained a very notable quantity of sugar. These differences are not difficult to account for, considering that there are many circumstances, especially the intervention of other diseases, which for a time may much diminish the amount of the sugar eliminated. As a rule, I have found that, in cases of diabetes, the density of the urine increases with its quantity; that is, the solid portion of the diet remaining the same, any increase in the quantity of the urine passed in the twenty-four hours, produced by augmented thirst, and the consequent imbibition of a larger amount of fluid, is accompanied by a higher density. This is a fact of some importance, to which we shall have occasion to recur.

With regard to the chemical composition of diabetic urine, I may state that its great peculiarity consists in containing sugar; and, as far as analysis has yet shown, I believe this is the only constant abnormal ingredient. This sugar, which is named diabetic sugar, resembles very closely that found in most fruits, such as can also be readily produced artificially from starch, and named grape-sugar or glucose. I say that diabetic sugar is *allied* to glucose, for it appears not to be absolutely identical with it, as usually supposed.

The varieties of sugar found in the animal and vegetable kingdoms may be conveniently grouped in two distinct classes, from the peculiar reactions they exhibit.

The first class, including cane-sugar and that from beet root, is thus distinguished. When boiled with a solution of potash, soda, lime, or any other fixed alkali or alkaline earth, it is not decomposed; the solution turns the plane of polarisation of a ray of light to the right, and, by the action of dilute acids, it is converted into sugar of the second class. When in contact with yeast, it also undergoes transformation into the second form, prior to the occurrence of vinous fermentation.

The sugars in the second group, as glucose, diabetic sugar, sugar from the liver, etc., are readily broken up when boiled with alkalies, with the formation of brown coloured acids, as melassic and sacchulmic acids; their solutions turn the plane of polarisation to the left; they readily ferment with yeast, and also reduce the salts of copper. It appears, however, that there are slight differences in these different sugars, as that obtained from the liver, and also diabetic sugar, more readily undergo fermentation than the glucose from starch.

From a knowledge of these properties, it is not difficult to discover the presence of diabetic sugar in urine, at least when it exists in any quantity, and more especially when this fluid exhibits the characters commonly met with in cases of confirmed diabetes. Perhaps the most simple test is that named Moore's test, which consists in heating the urine in a test tube with about an equal bulk of liquor potassæ of the Pharmacopœia strength; just before the fluid arrives at the boiling point, decomposition ensues, and a fine yellow or orange colour is produced; this gradually deepens, and, if the sugar is large in quantity, becomes orange brown and even dark brown; at the same time, a distinct odour of caramel or burnt sugar is evolved. By a little manipulation, this test can be rendered exceedingly delicate; for, if we first add a drop or two of the potash solution, to ensure slight alkalinity, and then some good bone black or animal charcoal, and throw on a paper filter, we obtain a fluid quite colourless, and which, on the further addition of the liquor potassæ, gives rise to no precipitate of earth phosphates, and when heated, the yellow or orange colour can be much more readily observed than in the urine before preparation; again, the delicacy can be still further increased by using only a *few drops* of a concentrated solution of potash in lieu of an equal bulk of that of the Pharmacopœia strength, as the volume is then scarcely increased. Some objections to this test have been made, and do perhaps exist; Dr. Owen Rees has stated that if the potash solution contains lead, it may cause a brownish colouration from some sulphur compound in the urine, especially if albumen be present; with a discolourised urine this could be easily distinguished. There are doubtless other solutions besides sugar which may change colour when heated with potash; but I believe these seldom exist in the urine, or are likely to lead to any serious error, when due precautions are taken in the employment of this reaction.

Moore's method is an exceedingly valuable one, for if *it* is not quite conclusive as a *positive* test of the presence of sugar, it is at least as a *negative* one; and in a prepared decolourised urine, should no change of colour occur on boiling with potash, we may safely conclude that no sugar exists, or, at any rate, such traces as may be safely disregarded. I have by means of this test recognised sugar in the urine of an apparently healthy person, about four or five hours after a full meal, no trace being discoverable in the fluid passed at a period most remote from the influence of food. I believe it will detect a small fraction of a grain in a fluid ounce of urine.

The next tests are those depending on the reducing power of sugar upon the salts of copper, and of these, several modifications have been proposed. One, named *Trommer's* test, is thus performed. The fluid to be examined is treated with caustic potash, and if there is much precipitate of earthy phosphate, it should be afterwards filtered, or the urine may advantageously be decolorised in the way I described when speaking of Moore's test; an excess of potash is of no consequence, and the alkali should always be present in quantities more than sufficient to decompose the sulphate of copper which is subsequently added; this latter should be in a dilute state, and added drop by drop; a precipitate of the blue oxide of copper at first falls, which is dissolved if sugar exists, with the production of a beautiful azure blue colour; the amount of the oxide dissolved being usually in proportion to the sugar present. When no further oxide is taken up, the liquid should be heated to the boiling point, the azure blue coloured is changed to a yellow or orange yellow, at the same time that turbidity is induced by the suboxide of copper becoming precipitated. Some precautions are necessary in making use of this test; and we must remember that albumen and ammonia salts have the power of dissolving the oxide, and producing the blue solution; and that very prolonged boiling may cause other substances which may be in the urine, beside sugar, to give rise to the precipitation of some suboxide of copper. These other substances are uric acid, creatine, and creatinine.

Another method of applying the copper test is to prepare a solution of the blue oxide of copper, in the way prepared by Barreswil, Fehling, Poggiale, and others. Barreswil's solution is thus prepared. Take 96 grains of cream of tartar, 96 grains of carbonate of soda (crystallised), 32 grs. of sulphate of copper, and 64 grains of caustic potash; dissolve in two fluidounces of distilled water, and filter. We have then a beautiful azure blue liquid, which, when added to urine or any fluid containing sugar, and the mixture brought to the boiling point, changes colour in the way before described, and becomes turbid from the precipitation of the red suboxide of copper. This test is subject to the same objections as Trommer's; and it is important to take care that it is either freshly prepared, or at least that there is an excess of caustic alkali, otherwise it may deposit the oxide even when no sugar is present. Both these tests, I believe, are sufficient, with proper precautions, to determine the presence or absence of sugar.

The test by fermentation with yeast, is one which has always been regarded with satisfaction, and it is also a method very readily performed. If we fill a tube, closed at one end, with the urine, to which a little yeast has been added, invert it into a saucer filled with the same, and place the apparatus in a warm room, or at a temperature of about 80° Fahr., should sugar be present, fermentation will speedily ensue, and carbonic acid being generated, the urine will be depressed in the tube. We may readily ascertain the nature of the gas which is formed, and may also obtain the spirit from the urine so fermented, and thus be enabled to assert positively that the fermentation has been vinous in character.

Many other qualitative tests have been from time to time proposed, such as the formation of *torulæ* in diabetic urine, the crystallisation of the sugar when a little of the fluid has been allowed to evaporate upon a piece of glass or in a dish; and patients themselves have not unfrequently been led to the discovery of the affection under which they have laboured, by observing that their linen became stiff from the sugar contained in the urine; but when such phenomena are observed, the medical man should have no difficulty in diagnosing the case from even a superficial examination. It is only in cases in which the sugar exists in mere traces, that there can be any *real* difficulty; and I believe that when the potash, copper, and fermentation tests fail to demonstrate the existence of this principle in the urine, its presence is of little, if any, pathological importance.

It is sometimes of interest, and, in investigations as to the progress which the disease is making, and on the effects of treatment, of considerable value, to ascertain the *amount* of sugar which a patient passes; modifications of the fermentation test are often employed for this purpose; for example, if we ferment a given weight of urine, and allow the carbonic acid only to escape, which can readily be effected in a Fresenius's apparatus, the difference of weight of the apparatus before and after the process, will indicate the loss of carbonic acid, and from this we may deduce the amount of the sugar; this, however, requires a balance, and is often difficult in clinical investigations.

Another simpler process consists in almost filling a long graduated tube with mercury, then putting in an accurately measured quantity of urine with a portion of yeast, and inverting the tube into mercury in a cup or trough, the carbonic acid generated can be thus measured in the tube, allowance being made for pressure of mercury, and also for temperature; a grain of sugar evolves nearly a cubic inch of carbonic acid gas, about forty-five forty-sevenths. A convenient apparatus for this purpose is described by Dr. Pavey, in his paper in the Guy's Hospital Reports. These two methods I have very frequently employed in arriving at the numbers to which I shall have to allude when treating of the therapeutics of diabetes. The copper solutions may also be used for the quantitative determination of sugar; for example, if we have the solution of a given strength, we can make a volumetrical measurement, by finding how much of the urine is required to completely reduce a given quantity of the solution; or how much of the solution, a measured amount of the urine. This method is often used by continental chemists.

Lastly, I may mention a plan which has been proposed for determining sugar, both quantitatively and qualitatively; a method depending on the property which diabetic sugar possesses, of turning the plane of polarisation of a beam of polarised light. A description of the apparatus and of the method of using it would, however, take too much time for me to venture upon it in these lectures. A convenient instrument for the purpose is made by M. Dubosque of Paris.

Having laid before you a sketch of the principal methods of ascertaining the presence and amount of sugar in the urine, it may be well to state what quantities are at times eliminated by

different patients; for it is a point upon which I believe there is much misapprehension. In October 1853, the following were the quantities of urine, with the amounts of sugar voided during five days, by a diabetic patient, under my care; and the analyses were made for me by my friend Dr. Buchannan, then physician's assistant at the hospital, who continued the daily examinations for a period of many months.

Date.	Quantity.	Sp. gr.	Sugar per ℥i in grains.	Sugar per diem. Avoirdupois.
Oct. 8	336 fl. oz.	1033	35·56	1 lb. 11 oz. 135·6 gr.
— 9	310 —	1034·4	31·1	1 — 8 — 381
— 10	350 —	1032	33·075	1 — 10 — 201
— 11	390 —	1031·1	32·06	1 — 12 — 253·4
— 12	385 —	1032	33·4	1 — 13 — 171·5

The patient at the time when these quantities were passed had been but a few days in the hospital, was taking the ordinary extra-full diet with a pint of porter, and, on account of the appetite being ravenous, probably some additional food procured from other inmates; no medicine was administered. You will observe that this patient, although having the disease in a confirmed state, was passing under 400 fluid ounces or 20 pints of urine, and that the specific gravity was not very high, varying from 1031 to 1034·4; many diabetic patients, therefore, probably pass daily a much larger quantity of saccharine matter. I have, in analysing the urine in several cases of this disease before the commencement of dietetic treatment, found the daily quantity of sugar to vary from about ½ lb. to 1¾ lb. In some cases of saccharine urine without marked diuresis, the quantities have varied from about three or four ounces per diem to a drachm or so; sometimes little more than a trace has existed. If we fractionise the urine of the twenty-four hours, especially in cases where the total amount of sugar is small, a marked difference is found at different times of the day; the quantity is largest about three or four hours after a full meal, and smallest, when the secretion takes place at the time most remote from the influence of food; and I believe this holds good even when the diet is exclusively animal, containing therefore no sugar or amylaceous matters; this point, if fully established, would be of considerable importance in studying the pathology of this disease, as we shall find in our next lecture.

[*To be continued.*]

Reviews and Notices.

The Functions and Disorders of the Reproductive Organs. By William Acton. Churchill: 1857. 8vo, pp. 106.

Physical incontinence has been grappled with and denounced by many lawgivers. The thunder of the Leviticus still reverberates. We read in history of the uncompromising enactments of the Puritans; and certain impracticable statutes yet remain in the law of this country. Vice is now to find a fresh antagonist in the cold unromantic arguments of the physiologist. It seems as though the instinct of license were doomed to be pursued remorselessly by a counter instinct of restriction.

The relations of sexuality, in respect of the organism alone, are so complicated that we may here disregard, and with advantage eliminate, its moral bearings. These are, however, by no means to be put out of sight and forgotten, but as gems to be laid aside, while the suitable mountings are being perfected. Physiology and pathology must analyse and explain the sexual phenomena, as chemistry has unravelled the phenomena of galvanic action. This must be accomplished before we can be provided with data upon which to proceed.

The correct interpretation of the sexual phenomena is a labour beset with many and peculiar difficulties. Mr. Acton in the work under notice, has initiated the assault of these difficulties, and has opposed to them a firm and consistent courage. To the results of his own observations, Mr. Acton adds the testimony of Lallemand, Parise, and Roubaud. The organisations and instincts of some of the lower animals have been noted by him, to strengthen his deductions by the facts of comparative physiology; and in this he has been aided by several high authorities. It is but fair to acknowledge the comprehensiveness of the idea with which Mr. Acton set himself to his task, however much we may differ from him in details. One is quite justified in saying that, hitherto, we have prudishly held aloof from any avowed and comprehensive consideration of the sexual relations. This puerile mock modesty is akin to that curious prejudice which so long consigned the physician-accoucheur to an inferior grade. It is time that timidity be cast aside, and that it be displaced by calm and philosophic inquiry. It would be ridiculous to urge the self-evident importance of correct and complete knowledge of the sexual relations of the organism. The systematic ignoring of the sexual difficulties by the profession at large has been the cause of an extraordinary evil which is only just beginning to be recognised. There exists a widely extended and thoroughly organised society of pretenders to medical knowledge, who first convert an unfortunate being into a hypochondriac, and then deprive him of everything he may possess. The machinery employed by these persons, their ramifications of espionage, and their atrocities, the astounding magnitude of the depredations effected by them, must soon see the light of day. The pitiable agonies of their numberless victims who can tell? The profession is, as we have just suggested, now only beginning to be awakened to a sense of its dereliction of function, and yet stands appalled at the monster which its supineness has allowed to be created.

It is not to be wondered at that the sufferers from functional disorders of the reproductive organs are to be found, for the most part, among the members of the more highly educated section of the community—those in whom the nervous system has reached a greater development, and whose sensitiveness practically magnifies any physical irritation into an insupportable goad. How early the seeds of manhood-suffering are strewn, we may perhaps learn from the following observations of Mr. Acton, who believes that much mischief originates in the too strong meat afforded to the young imagination in the writing of classical antiquity.

"When I see the sons of highly intellectual imaginative parents in possession of such books" (Lemprière's *Dictionary*, for example), "left to find out what the gratifications mean which they read of in the classics, I tremble for the consequences, feeling assured that, with childlike imitative powers, they will sooner or later wish to realise those sensations. The same fond parent, who relates with such delight the mocking powers or the imitative talent of his boy, little dreams, somewhat later, this precocious youth will probably be led by a similar impulse to test the truth of what he has read in books which have been allowed to stimulate his imagination. I speak advisedly, and at the suggestion of a large number of sufferers, who have confessed with regret that it was some such feeling as this, in entire ignorance of the consequences, that impelled them onwards in early life to commit the faults they subsequently blushed to acknowledge; and they have often expressed a wish that they could spare others the misery which they themselves had undergone."

In the management of the young, great caution and close observation are very necessary; but all to whom that duty may fall should combine with caution a thorough knowledge of the spring from whence the dangers originate which they strive to avert.

As, in the young, that, in ignorance, may be set down as a vicious tendency, which is in reality but a symptom of abnormal irritability, so in the elderly, uncontrollable amorousness, while it subjects the sufferer to the risk of having a stigma attached to his name, and perhaps may lead him into the grasp of the law, should be judged of rather at a medical than at a legal bar.

There is no class of cases more difficult to deal with than such as disorders of the reproductive functions present, and the position of the conscientious medical adviser is most trying. Temper and firmness are as essential to success as technical skill and knowledge. The psychical element of suc-

cess must be intuitive. The technical measures for the cure and relief of these disorders have been much advanced of late. Direct application to the seat of peripheral irritation, and attention to the general health, have replaced the nostrums of druggists.

To conclude: we have before suggested, that although, on some non essential details, we differ from Mr. Acton, we nevertheless advisedly say that his work deserves the attentive consideration of the profession.

British Medical Journal.

SATURDAY, APRIL 4TH, 1857.

REFORM IN THE MEDICAL DEPARTMENT OF THE ARMY.

Is there such a thing as Sanitary Science in our army? We confess that we have in vain sought a satisfactory reply to this very important question. The British troops in the pay of Her Majesty amount to nearly one hundred and thirty thousand fighting men; these are distributed over every region of the globe; the roll-call is heard in forty different colonies, and our regiments are exposed to every vicissitude of climate, "from Nova Zemla to the torrid zone." Under such circumstances it will very naturally be asked, What are the sanitary precautions taken to preserve health under so very different and adverse conditions? Where is the Manual of Health issued by the Director General, in order to instruct the young medical officer in the precautions necessary to be taken to preserve the health of the large bodies of men under his charge? To these most important questions no answer can be returned. There is absolutely no such thing as a sanitary system for our army, notwithstanding that they are exposed to more frightful disasters from the climate than any other army in existence, and notwithstanding the ease with which such a code could be drawn up by any three properly qualified men in the kingdom.

We publish this week, in our news columns, an abstract of the speech made by Lord Grey in the House of Lords in 1851, in order to show what the British soldier had to go through, not many years since, in spite of the Medical Department of the army, and the host of Inspectors with their Reports, which form to the present day the abortive machinery of the Director-General's Department. "In the colony of Jamaica alone," says his lordship, "there perished in the twenty years ending 1837, six thousand seven hundred soldiers—the annual deaths being one hundred and thirty per thousand!" This frightful mortality—one-third greater than that which took place at Waterloo, was the direct consequence of causes over which man had direct control. For five days out of the week the soldiers were fed upon salt pork, mouldy biscuit, and rum grog! Our brave fellows were in this manner deliberately poisoned by the food sent from home, at the same moment that the convicts on the island were receiving *fresh meat* five days in the week, and were consequently in perfect health. In addition to these enormities of diet (for which our Medical Department, unless it was a mere sham, was directly responsible), the troops were crowded in barracks out of which yellow fever never departed. It is needless to remark that these six thousand seven hundred men were as much slain by being subjected to these two potent causes of disease, as though they had been driven out in the barrack square and shot. All the while this horrible slaughter was going on, reports were in the usual form being transmitted home to the Director-General, and routine would have allowed this mortality of one hundred and thirty in a thousand to proceed *in a regular manner* to this day, had not Lord Metcalfe interfered, and by sending the troops to the mountain stations, and by putting them on fresh meat rations five days in the week, laid the foundation for the present improved state of things, by which the annual mortality is reduced to thirty-four in a thousand. Red tape will probably reply that this is all very sad, but you are speaking of the past. We reply that at the present day the condition of our barracks abroad is a disgrace to us as a nation, and forms many monuments to the impotency of the Medical Department of the army.

Dr. Milroy, speaking of the barracks in Kingston, Jamaica, in 1850-51, says: "It is difficult to exaggerate their abominable condition at Kingston, Spanish Town, and Up Park camp. One of the principal thoroughfares in Spanish Town *is purposely* avoided, *in consequence of the horrible pollution of the atmosphere from this cause.*" But we need not go back even as far as 1851 to find scenes of hospital and barrack life which prove that sanitary science, although it has found its way into our workhouses, prisons, and hulks, is yet guiltless of affording its protection to the British soldier. The condition of the Crimean hospitals and camping grounds speaks trumpet-tongued to the whole world, as to the neglect with which the soldier is treated by the department which should watch over his health and strength. Without going out of the metropolis, we may, by inspecting the Portman Street and other barracks, under the very eye of the Director-General, ascertain for ourselves what is thought good enough for Her Majesty's Guards. How is it, we ask, that, whilst the mortality amongst the civil population is for the age between twenty and forty about 8 per 1000, it is about 17 per 1000 in Her Majesty's three crack regiments, selected men of the mean age of twenty-six?

Thus at home and abroad the soldier is sacrificed, and allowed to perish in a much higher ratio than any other part of the population. Nay, whilst the convict is being pampered with thoroughly warmed apartments and the most scientifically assorted diet, he is put out, even when diseased, as at Fort Pitt at Chatham, in damp and mildewed casemates, and fed, when under circumstances of the utmost privation, such as occurred in the Crimea, on a diet which, if purposely constructed, could not have better ensured dysentery, scurvy, and cholera. If the British soldier is thus allowed to rot under every condition, what, we ask, must be the use of the present medical organisation of the army? of what avail are the reports sent in at regular intervals by the various inspectors? of what avail is the superintendence of the Director-General?

In order that the light of modern science shall penetrate to the distant hill stations of our troops, as it does now to every convict settlement, an entire remodelling of the Army Medical Department must take place. The Government must construct a board out of the best men it can find in the country, and they must draw up such a system as shall at least place our brave army under sanitary conditions as favourable as those which now avail the convicted felon in any penal esta-

blishment or prison in Her Majesty's dominions. This surely is not asking too much. It is absolutely impossible that the medical supervision of 130,000 men can any longer be entrusted to the charge of any one man; the burthen, were he an Atlas, would be beyond his strength; and it is also certain that the new board must be endowed with sufficient authority to initiate reforms, and to see its recommendations are thoroughly carried out. The commission that is about to inquire into this most important subject must see that an authority which can only communicate with the Government through a clerk of the War Department, cannot insure that respect, and cannot maintain that dignity, which the important nature of its duties, and the welfare of the British soldier, demand that it should possess.

THE WEEK.

We rejoice exceedingly to state, that the electors of Bodmin have rejected Dr. Michell, the gentleman who so misrepresented the medical profession in the last Parliament. It was always a matter of astonishment to us that any British constituency should have sent to Parliament a man who never opened his mouth in the senate without talking the most egregious nonsense, or without attempting to throw ridicule upon the most distinguished discovery in medicine. Whilst chronicling with unfeigned satisfaction the casting forth of this unworthy member of our own profession from the House, we cannot help regretting the casualty that has occurred to Mr. Layard at Aylesbury. The energy and fire of this gentleman would indeed have been of immense advantage to the Poor-law Medical Officers, whose cause he so lately espoused at St. Martin's Hall; but we have no doubt that his absence from the House is only temporary, and that before long he will be again "the right man in the right place," combating for an ill-used section of the profession. Mr. Headlam is again returned for Newcastle; we may hope, therefore, to see the Medical Reform Bill speedily re-introduced, as we trust that the evident reforming tendency of the New House will lead it to pass a measure, during the present session, which shall settle, for twenty years at least, this important question.

We perceive that the expedition which left Bushire and gained such a brilliant victory over the Persian horse, were totally unprovided with tents or baggage of any kind. We do not know whether this omission to take the *impedimenta* was intentional or otherwise, but it seems strange that all protection from the weather should have been neglected on this occasion after our experience of a like omission in the Crimea. As it was, the troops were exposed to the most terrific weather, and no doubt the seed of much disease was sown in the few days our troops were without cover. We record with much pleasure that honourable mention was made by the Commander-in-Chief of the services of the medical department in this expedition.

In accordance with the usual course of events in such cases, the trial of Alfred Matcham for the manslaughter of Mary Ann Jeckells, at Lowestoft, has terminated in a verdict of "Not Guilty." The accused was treated by his lordship, the Chief Baron, as a legally qualified practitioner, although the only evidence on this point was a statement made by Matcham himself, that "he had received a diploma from the college of New York, and had studied under a physician of that city." Indeed, both in the opening charge of the judge, and in his summing up, there was a strong feeling to extend to the prisoner the same consideration and leniency that every medical man would hope to receive in the investigation of an unfortunate case. In his charge to the grand jury, his lordship observes:—

"I do not purpose absolutely to lay it down that it is impossible for a medical man to expose himself to a criminal charge. I might err very much if I were to go to that length; but I am sure I am not wrong in saying, that every person who is legally practising medicine, in any form, ought to receive the largest indulgence when his conduct is inquired into, and every presumption ought to be made in his favour. I think that protection is not only due to the members of an honourable and learned profession; but, in my personal judgment, as a man, I think it is essential to the free and unfettered exercise of the judgment of a medical man, that he should not enter the sick chamber, or go to the bedside of a patient, as it were, with a halter round his neck. I think he ought to be assured that if he takes there the calm mind, the honest intention, the best skill that he can exercise, and all the knowledge that he possesses, he is not responsible—and I think that the public has a deeper interest even than he has—he is not responsible for an error in judgment."

A brief report of the trial will be found in our news columns; and to this we invite attention.

An able Report on the Health of the London Postmen in 1856, drawn up by Dr. Waller Lewis, forms, by permission of the Postmaster-General, one of the contributions to the *Sanitary Review and Journal of Public Health* for the present month. From the report, we learn that the general health of the officials of the Post-Office has on the whole been most satisfactory; and this result is evidently attributable to the improved sanitary arrangements of the building, and to the care which is taken to meet disease at the outset so as to prevent it, if possible, from assuming a serious character. But there is still too great a prevalence of rheumatism, sore throat, and other diseases attributable to various preventible causes. One of the most prominent causes of complaint is the gas employed in the larger offices, which is alleged to produce bad effects on the general health or on the eyesight of the sorters and letter-carriers. In the inland office there are 155 gas-lamps; while the number of men employed at one time on morning duty is about 467; on evening duty, 378: in the newspaper office, the gas-burners are 145 in number; and the number of men employed is 646 in the morning, and 287 in the evening. The lamps are only eight feet from the floor. To remedy the evils arising from this arrangement, Dr. Lewis makes the following suggestions:—

"1. The sources of the light should be as few in number as possible, consistently with the light being sufficiently powerful and equally diffused.

"2. The lights should be as elevated as the ceiling will allow.

"3. They should be so contrived, that nearly all the heat, as well as the whole products of combustion, should be carried off directly, without admixture with the lower strata of air, and be made subservient to an efficient system of ventilation.

"4. I am of opinion that the reflective power of metal or other substances might, with economy, be more scientifically employed than is now generally done.

"If these principles were carried out in lighting the offices of this department, I believe that very great benefit to the health of a large number of the officers would rapidly result."

In the ventilation of the basement offices and other apartments, much improvement has been effected, to the great com-

fort of the bag-room officers, who have by letter expressed their satisfaction to Dr. Lewis at the success which has attended the endeavours to promote their health. At the same time that he points out the improvements which have been made, Dr. Lewis does not fail to recognise the fact that much more requires to be done to improve the sanitary condition of the Post-office, especially of those parts of it which have come into use under the pressure of greatly increased business. This is a matter which may be well left in the hands of Dr. Lewis and the Post-office authorities, the latter of whom appear to be most ready in carrying out the suggestions of their medical officer.

Mr. Gamgee has published a letter, addressed by him to the Right Honourable the Secretary of State for the Home Department, on the subject of the Cattle Plague and diseased meat, in their relations with the public health, and with the interests of agriculture. In the letter he has ably given the evidence of the existing evil; and, after commenting on the inefficiency of existing laws, and pointing out the impending danger, he has laid down the principles on which the legislation required to meet the exigencies of the case should be based. In concluding, he says:—

"If I have succeeded in demonstrating the existence of great public evils, and the inefficiency of existing laws to provide against them; if, additionally, I have made clear that we are in peril of one of the greatest calamities that can befall a nation—a cattle plague, I feel confident Her Majesty's government will take the facts here embodied into its most serious consideration, and provide for them in a measure, and with a readiness commensurate with the gigantic interests at stake,—the public health and the interests of agriculture. The former is most injuriously affected by the vast amount of diseased meat sold and consumed for human food; and though the latter—the interests of agriculture—have not yet suffered the calamity which has befallen some nations of continental Europe, yet the danger is real and enormous, as far as it concerns a pestilence, against which the only hope rests in provident and energetic preventive measures."

We trust that Mr. Gamgee's representations will attract the attention of the Ministry, and lead to the adoption of some practical measure. Even if the evil were not so great as is represented, prevention would still be wise when danger is threatened.

Association Intelligence.

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

THE General Secretary of the British Medical Association begs to call the attention of members to the Laws regarding the ADMISSION of MEMBERS, and the PAYMENT of their SUBSCRIPTIONS.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association of the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.

2. Payment to the Secretary of the Branch to which the member belongs.

3. Members residing in the Metropolis and vicinity can make their payments through the publisher of the BRITISH MEDICAL JOURNAL, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W. C.

PHILIP H. WILLIAMS, *General Secretary.*

Worcester, March 1856.

NEW MEMBERS ADMITTED DURING 1857.

Appleton, John G., Esq., Luton, Bedfordshire
Atkinson, J., Esq., West Hartlepool, Durham
Blower, William, Esq., Bedford
Boult, Edmund, Esq., Surgeon to the Eye Infirmary, Bath
Boulton, William W., Esq., Surgeon to the Dispensary, Beverley
Brinton, William, M.D., Physician to the Royal Free Hospital, Brook Street, London
Brookes, Andrew G., Esq., Cressage, near Shrewsbury
Bryden, William A., Esq., Mayfield, Sussex
Cadge, William, Esq., Assistant-Surgeon to the Norfolk and Norwich Hospital, Norwich
Carlyle, W. Johnston, M.D., Langholm, Dumfriesshire
Carnes, J., Esq., Coxhoe, Ferry Hill, Durham
Carnley, Henry, Esq., Hull
Charles, Thomas, Esq., Hertford Street, May Fair, London
Clare, W., Esq., Mossley, near Ashton under Lyne
Coates, Charles, M.D., Bath
Coldstream, John, M.D., Edinburgh
Coventry, Alexander, Esq., Rochdale
Croston, James, Esq., Atherton, Manchester
Dale, Thomas, Esq., Liverpool
Dalrymple, Donald, Esq., Norwich
Dawson, Thomas, Esq., Liverpool
Downes, William, Esq., Birmingham
Ellis, Robert, Esq., Bristol
Farrar, Charles, M.D., Chatteris, Cambridgeshire
Fernie, Andrew, Esq., Wellingborough, Northamptonshire
Fraser, —, M.D., 10th Hussars, Birmingham
Gabb, John, Esq., Bewdley, Worcestershire
Gibson, J. H., Esq., Lecturer on Surgery in the School of Medicine, Hull
Godfrey, Joseph J., Esq., Great Barford, Bedfordshire
Goulston, John G., M.D., Knighton, Radnorshire
Greig, David, M.D., Dundee
Harper, Robert, Esq., Holbeach, Lincolnshire
Henry, Mitchell, Esq., Assistant-Surgeon to the Middlesex Hospital, Harley Street, London
Hewitt, T. S., M.D., Grantham
Hicks, George D., Esq., Toddington, Bedfordshire
Hill, John, Esq., South Cave, Yorkshire
Hillier, Thomas, M.D., Medical Officer of Health to the St. Pancras District, Gower Street, London
Hodgson, George F., Esq., Brighton
Hodson, Frederick, Esq., Horusea, Hull
Holmes, Timothy, Esq., Curzon Street, London
Irving, George Bell, Esq., Lamberhurst
Jackson, Thomas, Esq., Welton, South Cave, Yorkshire
Jackson, Thomas Hayes, M.D., Darlington, Durham
King, Kelburne, M.D., Demonstrator of Anatomy in the School of Medicine, Hull
Land, J. Samuel, Esq., Patrington, Hull
Landor, Henry, Esq., Heigham Retreat, Norwich
Lawford, Edward, M.D., Leighton-Buzzard, Bedfordshire
McLoskey, Patrick, Esq., Rothwell, Northamptonshire
McManus, T., Esq., Hull
Manifold, William Hargraves, Esq., Liverpool
Marriott, John Esq., Colston Bassett, Nottinghamshire
Mault, Samuel, M.D., Fenny Stratford, Buckinghamshire
Moore, George, M.D., Brighton
Nimmo, Matthew, Esq., Dundee
Paley, William, M.D., Physician to the Infirmary, Peterborough
Prince, Frederick, Esq., Sawston, Cambridgeshire
Shaw, George, Esq., Battersea
Slinn, William S., Esq., Ampthill, Bedfordshire
Spurgin, B., Esq., Thrapstone, Northamptonshire
Stevens, Charles P., Esq., Biggleswade, Bedfordshire
Stone, Joseph, M.D., Manchester
Tarzewell, James, Esq., Sturminster Newton, near Blandford
Thompson, Charles Robert, Esq., Westerham, Kent
Thomson, Thomas, M.D., Inverury, Aberdeenshire
Thurnall, William, Esq., Surgeon to the Infirmary, Bedford
Traill, John R., M.D., Monymusk, Aberdeenshire
Walker, Henry, M.D., Brierly Hill, Staffordshire
Watson, Edward, Esq., Somercoats, Louth
Weir, A., Esq., Great Malvern
Williams, J. F., Esq., Cranfield
Williamson, J., Esq., Wotton, Bedfordshire
Wood, Richard, M.D., Driffield, Yorkshire.

Worcester, April 1. P. H. WILLIAMS, General Secretary.

CHANGE OF ADDRESS OF THE EDITOR.

All letters or communications for the Journal should in future be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

NOTICE TO MEMBERS IN ARREAR.

Notice is hereby given, that after the 18th day of April next, the British Medical Journal will be withheld, in accordance with the Laws, from all members whose subscriptions for last year shall remain unpaid.

Philip H. Williams, *General Secretary.*

Worcester, March 1857.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Birmingham and Midland Counties. [Ordinary Meeting.]	Hen & Chickens Hotel, New Street, Birmingham.	Thursday, April 9th, 6 P.M.

FINANCIAL REPORT.

PRESENTED BY THE COMMITTEE OF COUNCIL.

The Laws of the British Medical Association provide that during the first three months of each year the Committee of Council shall, after the accounts have been audited, make a Report, through the Journal, as to the pecuniary position of the Society. In accordance with this rule, your Committee proceed to detail to the members, as nearly as possible, the present condition of the finances.

In the report made by the Committee last year, it was stated that about £1300 remained due by the Association at the end of 1855. It was decided, by the special meeting held in Birmingham in November 1855, that no part of this sum should be paid out of the subscriptions that would fall due in 1856; but that it should be defrayed by a special call of ten shillings on each member,* by the arrears of subscriptions due on December 31st, 1855, and by the sum received for advertisements in the Journal. Accordingly, this arrangement has been carried out; and the following is a statement of the sums received and paid on account of the debt due December 31st, 1855.

Debt.	£.	s.	d.
Due to Treasurer	692	11	8
Paid to Richards (Printer); to Deighton; and Commission	623	17	11
	1316	9	7

Receipts by Treasurer.	£.	s.	d.
For arrears due December 31st, 1855	195	12	6
Produce of Call Fund	492	0	9
Advertisements	625	4	3
	1312	17	6
Thus leaving a balance due to Treasurer	£3	12	1

Your Committee beg to state that since the accounts were audited, the Treasurer has received further sums from members for the ten shilling call; so that the debt due at the end of 1855 is now liquidated by the means appointed for that purpose. So far the result is favourable.

Your Committee now proceed to show what has been received by the Treasurer from the 1st of January 1856, to the 31st of December in the same year; also, what has been paid by the Treasurer for claims arising during the year 1856; and the liabilities of the Association on the 31st of December last.

The amount received by the Treasurer for subscriptions due in 1856, is £1565:1:6.

The payments are as follows:—	£.	s.	d.
To Richards (Printer)	1292	18	0
Salaries.—Dr. Wynter £250; " Dr. Williams 155; " Dr. Henry 85; " Clerk 12	502	0	0
Reform Committee	50	0	0
Davidson (for Commission)	96	0	0
Petty expenses (of Dr. Williams and Mr. Richards)	56	9	11
Sending Circulars for Special Meeting	12	0	0
Reporters, Auditors, Stamped Envelopes, Branch Expenses, and Sundries	31	5	2
	2040	13	1
Receipts	1565	1	6
Due to Treasurer	475	11	7

The other liabilities (December 31st, 1856) are:—	£.	s.	d.
Richards (Publishing)	66	16	0
Richards (Printing)	416	19	6
Dr. Thudichum	8	5	2
Petty Cash	35	19	2
	527	19	10
Due to Treasurer	475	11	7
Total owing by the Association at the commencement of 1857	1003	11	5

To meet these liabilities, there are the arrears of subscriptions due on December 31st, 1856, and the amount due for advertisements. They may be stated as follows:—

	£.	s.	d.
Subscriptions, about	650	0	0
Advertisements, about	350	0	0
Total Assets	1000	0	0

The Association, therefore, at the end of the year 1856, may be considered to be clear of debt, and to have the income for 1857 to meet the expenditure.

The following is a summary of the entire receipts and payments for the year 1856.

Income.	£.	s.	d.
Subscriptions for 1856	1565	1	6
Previous arrears	195	12	6
Call Fund of 10s.	492	0	9
Advertisements	625	4	3
	2877	19	0

Expenditure.	£.	s.	d.
Old debt	1312	17	6
Payments in 1856	2040	13	1
	3353	10	7
	2877	19	0
	475	11	7

Thus it will be seen that the debt due on the 31st December 1855, has been reduced from £1312:17:6 to £475:11:7, which is the actual deficiency on the 31st December 1856.

Your Committee cannot avoid remarking on the fact that so large a sum should be due from members for subscriptions at the end of the year 1856. This ought not so to be; and your Committee cannot help expressing their regret that so many members should be forgetful of the debt they owe to the Association.

Charles Hastings, *Treasurer.*

Worcester, March 1857.

* The Treasurer will still be glad to receive contributions to the Call Fund from those members who have not yet responded to the resolution passed by the Special Meeting.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 10th, 1857.

Charles Locock, M.D., President, in the Chair.

ON THE PATHOLOGY OF THE ARTICULAR CARTILAGES. BY THOMAS BRYANT, ESQ., F.R.C.S.

[*Communicated by* Mr. Birkett.]

The author commenced by briefly describing the method by which cartilages are nourished, and laid stress upon the point of their dependence upon the integrity of other structures for their supply of blood; the consequence of this dependence being well shown in the fact that the nutrition of the cartilages is necessarily arrested or perverted upon any disturbance to the nutrition of the part upon the integrity of which they depend for their nourishment. The diseases to which the cartilages are liable were described as hypertrophy, atrophy, and granular, fatty, and fibrous degeneration. That *hypertrophy* might exist under the same circumstances that induce it in other tissues could not be denied, although the author knew of no genuine case. The cases described as such were associated with other disease of the joint; and it was questioned whether such a thickening was not the result of softening, or mere swelling of the tissue, or of some other pathological change. *Atrophy* of cartilage occurred either in old or in young people, where any of the requirements for healthy nutrition were defective. Under the head of *granular degeneration* was included the majority of the cases of what is called ulceration of cartilage. The author's researches had tended to convince him of the truth of Professor Redfern's conclusions. Degeneration might primarily commence either in the cartilage itself, or upon its synovial or bony surfaces; in the latter cases, the degeneration was secondary in the order of events, some diseased or perverted nutritive change in the bony lamella, or synovial membrane, being antecedent to the degeneration of the cartilage. A case was then given illustrative of the dependence of the cartilages for their integrity upon the integrity of those tissues to which they were connected. A small patch of the synovial surface of a cartilage, exactly corresponding to a patch of inflamed synovial membrane, had become degenerate, the other portions of the cartilage being quite healthy. If this membrane had been ruptured, an ulcer, *so-called*, would have been visible. Degeneration of cartilage as depending upon disease of the bony lamella or heads of the bones was then mentioned, and the different appearances of the cartilage in the different stages of the disease were described. *Fatty degeneration* was described as being constantly found in joints which had been deprived of their natural function by any cause whatever. The general and microscopical appearances were given, and a case illustrative of the subject was read. It was due to this form of degeneration that the rapid disorganisation of a joint follows upon an accidental attack of inflammation in chronic diseased joints. *Fibrous degeneration* was next described, and the different appearances to the eye and the microscope in its different stages. The connection between this form of degeneration and the calcareous degeneration of the osseous lamella was mentioned, and also the connection between the fibrous and granular degenerations, the former appearing to be a more chronic change of a somewhat similar character. Other changes were then alluded to not included in the preceding divisions, such as the deposition of gouty materials in and upon the cartilages of joints, and the absorption of cartilage, leaving the porcellanous or dense bony surface of the osseous lamella. A case was read illustrating the connection between the bony lamella and the cartilage, and demonstrating that the degeneration of the latter and the calcareous degeneration of the former were produced by similar causes.

Mr. Ure had on several occasions seen the granular disease. A case of a striking character had occurred to him last September, after amputation of a boy's limb for pulpy degeneration of the synovial membrane. Another peculiar disease, called the pilous, also existed, in which the surface of the cartilage had the appearance of the pile of Utrecht velvet. The author would probably include this under the head of fibrous disease. The author's views were entertained very extensively on the continent, but particularly in Paris.

Mr. Quain had expected a different kind of paper. The title had led him to believe that "pathology" of the cartilage meant the cause, symptoms, diagnosis, and also the morbid anatomy, of the diseases. He should have been interested if the author had connected the morbid anatomy and the morbid changes with the symptoms and appearances exhibited during life. He had been much struck with a case mentioned in the paper of the child who had died with hydrocephalus twenty-eight days after the disease of the hip had commenced. The dissection of such a case was interesting, as surgeons seldom had the opportunity of observing the disease until it was in a very advanced condition. The description given by the author of inflammation of synovial membrane and the ligamentum teres was clear, and he had probably correctly ascribed the disease of the cartilage to the disease previously existing in the synovial membrane, but he added that the cartilage on the head of the bone was softened, and the synovial membrane over it inflamed. He ascribed the change in the cartilage to the change in the synovial membrane. Was it certain, however, that there was a synovial membrane over the head of the bone? He believed the existence of such a membrane in these cartilages was denied by histologists.

Mr. Spencer Smith exhibited a preparation from the museum of St. Mary's Hospital. It had reference to the question as to whether a synovial membrane existed over the head of the bone. Histologists, he said, admitted that there was such a membrane in the fœtus, but many denied its presence in after life. The membrane, however, could be distinctly seen in the preparation, and was raised from the surface of the cartilage; the cartilage beneath being hollowed out like a cup. The museum at St. Mary's Hospital contained a splendid preparation in which three or four such destructions of cartilage had taken place at the lower end of the femur. The joint had been rapidly destroyed by acute inflammation; and, on making an opening into it, three or four little puffs on the synovial membrane—some of the size of peas, and some as large as horse-beans—were observed. The synovial membrane projected forward; and on slitting it open, a soft fluid escaped, and the cartilage was found to have undergone a destructive process. In the specimen he had exhibited, there was not the slightest appearance of the membrane being a false one.

Mr. Birkett had examined many subjects very carefully to ascertain if such membranes existed. He had never, however, in the adult subject, met with anything approaching it. He had discovered, near the circumference of the head of the femur, in infancy and very early life, a small development of such tissue as might be called epithelium, but nothing approaching, in his idea, to the character of a membrane. Mr. Toynbee had some years since brought before the Microscopical Society specimens to illustrate the existence of the synovial membrane; but he (Mr. Birkett) did not deem them satisfactory. In Mr. Smith's specimen he regarded the membrane as something adventitious. The synovial membrane was an extremely delicate tissue; but the membrane in the specimen was as thick as a piece of paper. Such membranes he regarded as the result of some inflammatory action pouring out a tissue which became organised on the surface of the cartilage.

Dr. Mayo concurred in the remark of Mr. Quain that morbid anatomical investigations should always be combined with strictly dynamical, physiological, and practical considerations, having reference to the actions and conditions of life.

Mr. Spencer Smith remarked, that in his specimen the thickness of the membrane most probably depended on the fact, that prior to amputation of the limb disease had been going on in the articulation for nearly eighteen months.

Mr. Bryant said that if he had extended his communication so as to meet the requirements of Mr. Quain, his paper would have been one upon diseased joints, and would have extended far wider than he intended it should do. Whether or no the membrane over the articular cartilage was synovial he could not determine. It was, however, certainly a membrane, being composed of a structure differing completely in character from that of the cartilage.

ON A READY METHOD OF DETERMINING THE PRESENCE, POSITION, DEPTH, AND LENGTH OF A NEEDLE BROKEN INTO THE FOOT.

[*Communicated by* H. Bence Jones, M.D., F.R.S.]

The deductions drawn may be thus briefly stated:—1. The presence of an imbedded needle may most surely be determined by making it into a magnet by induction, and then testing for it by a minute suspended magnet. 2. The direction of an imbedded needle may be determined by marking the direction in which the inducing magnet makes the strongest magnet.

When the length of the needle lies in the line joining the poles of the inducing magnet, it becomes the strongest magnet. 3. The depth of the imbedded needle may be determined by the intensity of the action near the surface of the skin. 4. The length of the needle may be guessed when the direction is known, and the amount of magnetic action at the part of the surface opposite to the spot where the needle entered is observed. 5. The motion of the needle may be determined by carefully noting from time to time the changes that require to be made in the position of the inducing magnet, in order to give to the hidden needle the strongest possible magnetism.

Mr. Quain had successfully adopted the plan recommended by Mr. Smee in several cases. He thought that the plan of magnetising the needle in the flesh, as proposed in the paper, was a great improvement. Unless, however, the portion of needle employed in the experiment was very small, it would not be acted upon by the needle which was imbedded. On one occasion he was enabled by this plan to detect a small fragment of iron which was imbedded in the ulnar nerve.

Mr. Brooke remarked that every surgeon might not possess a powerful magnet to magnetise the imbedded needle; but this effect would be as well produced by a ring of copper wire, containing about 100 coils, similar to that manufactured for galvanometers, the two ends of the wire being connected with a galvanic battery. The greatest amount of magnetism would be induced in the imbedded needle when its direction was perpendicular to the plane of the coil; but if the plane of the coil were coincident with the plane of the needle, scarcely any amount of magnetism would be induced.

Dr. Copland inquired whether any surgeons had extracted needles which had been introduced in the manner described?

Mr. Quain had taken away two fragments. The experiment, however, required to be conducted with great caution, as the needle might be acted upon by the atmosphere.

Dr. Copland recollected a lady who was lame for a considerable time in consequence of a needle having become deeply imbedded in her foot. Sir Benjamin Brodie had advised that nothing should be done in this case. The pain, after some weeks, disappeared; the lady was able to walk, and experienced no after-inconvenience. The needle was never discovered,

HARVEIAN SOCIETY.

Thursday, February 19th, 1857.

W. Camps, M.D., Vice-President, in the Chair.

THE CONSTITUTIONAL ORIGIN AND TREATMENT OF CANCER.

BY T. WEEDON COOKE, ESQ.

It was necessary, in order to arrive at a means of overcoming cancer, to go back to the times of Hippocrates and Celsus, and to learn from them that no operation, whether by knife or caustic, will eradicate the disease. The whole constitution must be attacked, and not only the local manifestation of the malady. The author had begun the treatment of this disease at the Cancer Hospital on the principle of local eradication by operation; but the observation of upwards of a thousand cases had gradually convinced him that the whole system must be the main point of attack, the local disease being comparatively easy of management. After referring to the literature of the subject, the author stated his belief in the existence of a specific cancer-cell, which could be created of and from the blood alone. The systemic origin of the disease is further proved by the following facts: 1. The disease almost invariably returns at an earlier or later period after extirpation. 2. An hereditary disposition is shown in a certain number of patients. 3. The evolution of the disease occurs at a time when important changes are occurring in the circulatory system. 4. Depressing moral agents have an undoubted effect in originating the malady. 5. Further evidence is afforded by the numerous deposits of cancerous matter in many parts of the body. One hundred and twenty eight persons had presented themselves at the Cancer Hospital who had been operated on, and the average duration of their freedom from any external sign of the disease was eighteen months. Mayo operated on 100 cases, and considered that 5 only had been permanently benefited. Boyer admits 4 cures only in the same number; and Macfarlane, who had operated on 118 persons could not point to a single radical cure. The hereditary taint must, if proved, go far to establish the constitutional origin. Velpeau says one in three have this predisposition; at the Cancer Hospital it has only been noted in one in six, and by Sebert in one in twelve cases. Cancer in its various forms is seen at the commencement and at the end of life; but in the great bulk of cases from forty-five to fifty is the usual period of its development. According to a calculation made by Mr. Cooke in upwards of one thousand cases the average age is forty-three and a quarter years. This period of life is obnoxious to the most remarkable changes in both sexes. But while the male is not exempted from alterations of structure and impairments of function at this time, the female especially suffers from the cessation of the menstrual flow. This additional cause of deterioration of the vital fluid accounts for the wide difference in the number of the two sexes afflicted with cancer. At the Cancer Hospital the female patients are as six to one male. If the disease was local, why should it so constantly select this particular period of life for its manifestation? Some believing in the constitutional origin insist upon a local existing cause to set up the action; but this even is scarcely supported by facts, inasmuch as one in seven only of the thousand patients referred to knew of or suspected any direct violence to the part affected. The effect of depressing moral agents has been noted by most authors, but rejected by some. Under these circumstances, atrophy of the red corpuscles, and increase of the colourless globules, are observed; thus the blood is deteriorated, and the tissues formed from it show the defective organisation of cancer. Whether the defect be a process of exudation or of impaired nutrition is difficult of solution; but Mr. Cooke leant to the idea of deranged nutrition or degeneration of the tissues analogous to fatty degeneration. The distribution of the disease through the various structures of the body, together with the impossibility of conveying cancer by inoculation, would seem to prove further the systemic origin of cancer.

The constitutional origin of cancer being established, it becomes necessary to apply the test of practical experience, founded on the observation of the course which nature pursues when left to herself, and of the course and termination of the disease when art endeavours to relieve it; and to prove the necessity for providing that the tissues of the body shall be azotised, built up, and invigorated by physical and perhaps scarcely less by moral agencies. The whole being thus cared for, the local manifestation of the disease may be usefully attacked. There are cases in which hæmorrhage or excessive purulent discharges are so weakening the patient that it becomes necessary, either by the knife or caustic—but better by the former, under the influence of chloroform—to remove this source of decay. In a very large number of cases there is a period when the cancerous tumour ceases to increase, begins to diminish, and gradually to waste away. If, then, nature is sufficient, even in a few cases, to check the disease, success might also be fairly expected from the use of some of the abundant means of encouraging a healthy condition of the solids and fluids of the body. All medicines or dietaries of a lowering description are to be repudiated; and even the iodide of potassium the author had little inclination to employ, unless in combination with iron or some other tonic. Soporifics only add to the dyscrasia; and when, from the entreaties of patients, it becomes necessary to have recourse to them, all hope of remedy must be put aside. Arsenic has formed the basis of most of the secret remedies used for cancer; but, according to the author's experience, it is inferior, either internally or externally used, to other more certain and less dangerous tonics and escharotics. Of all medicaments, iron in its various forms is capable of effecting the largest amount of benefit. In order to obtain this good in various constitutions, it is necessary to vary the form of its administration, and to alternate the tonic with others. The mineral acids are most valuable either alone or in combination with other drugs. Lemon-juice and sarsaparilla in delicate people is a most excellent appetiser. Compound tincture of cinchona is largely used with the greatest benefit at the Cancer Hospital; and cod liver oil, as an adjuvant to the other remedies, is serviceable. Diet and moral management are of the utmost moment. It would be impossible to lay down absolute dietetic rules; but the system requires to be well nourished and somewhat stimulated. Good meat, good beer, and a fair supply of good vegetables, putting aside soups and fish, are the grand indications. Wine may be taken according to advice. The treatment of the mind is not less important; and if the idea of the incurability of cancer could be eradicated, hope would greatly assist our efforts at restoration. The diversion of the mind from the contemplation of the malady by the influence of genial society, by the cultivation of literature and science, and by change of scene in travel, have tended to the cure of the disease.

It appears from the statistics of the Cancer Hospital that 128 persons have presented themselves who had been operated on previously; and that the average lapse of time before the return of the disease in these cases was eighteen months. There are some cases in which removal of the local malady is desirable. One is that of advanced hæmorrhage, already been referred to. The other condition is where epithelial cancers attack any exposed part, such as the lips, face, or extremities. The method of removal in either of these cases should be by the knife under the influence of chloroform. *The knife can do without pain in as many minutes all that the caustic can do with pain of no ordinary character in as many days.* These two agents, however, in the local treatment of cancer, are of infinitely less importance than those which assist in the induction of that atrophy of the tumour which is brought about by nature in many cases. Of all the detergent remedies, lead, in its various pharmacopœial forms, is the most efficacious. Among special applications for particular parts are chlorate of potash and hydrochloric acid lotion, and carrot poultice to the ulcerated or sloughing breast; borax lotion, and the application of the nitric acid or sulphate of copper to the tongue, etc. But it must be at all times kept in view, that local treatment in cancer, whether by the knife or caustic, or detergent applications, is second in importance to the general upholding and revivifying of the constitutional powers.

In the discussion which ensued, Dr. Theophilus Thompson, Mr. Burford Norman, Dr. Vernon, Dr. Hutchinson Powell, Dr. John Gray, and Dr. Camps, took part.

Editor's Letter Box.

MEDICAL REFORM.

Sir,—Many years an associate, I have little encroached on your columns, and now had been silent, but that silence, under some circumstances, takes the form of self-reproach. Unlike chess or whist, lookers on at the game of Medical Reform are not forbidden to drop a hint, and a gleaner, in the wake of more active spirits, might shake, perhaps, a trifle of grain from his bundle of chaff.

Now, does the phrase "Medical Reform" fully express that regeneration, reorganisation, and determination to assume a proper status of the Medical Profession which it is intended to convey? Is the phrase not too hackneyed, and occasionally prostituted in political service? I simply propose the question. Is it not hateful, even in this day, to some ears which would joyfully hail the triumph of physic; and does it explain the claim there is upon society and the public, whose battle it is, as much or more than that of the profession? Does it not rather imply a reformation of the members of the profession, than its grievances? Again, is the profession not a little too prudish and exclusive in its intercourse with society? The hydropath quacks, etc., "communicate freely", and make their game; but about the Regulars there is still a something savouring of the prestige of the gold-headed cane, nods and winks, etc., and little effort made to enlist the sympathies of the public in a common cause against a common enemy. "Familiarity begets contempt," it is true; but it is a shallow mortal indeed who fancies himself a doctor because he has had a little converse with one; and there does exist here and there an economist who would try to introduce Union remuneration to private establishments, but such are exceptions; "*Hic niger est, hunc tu Romane caveto.*" Generally greater freedom of intercourse would lead to an acknowledgment of the superiority of the profession, and its claims upon society in all that relates to health, as witness the success of the quack over those who

"Do good by stealth, and blush to find it fame."

It would not be necessary to proclaim individual merits, but scientific success and superiority as a body; and why should the profession seem to monopolise grievances which it only "enjoys" in common with the public as sleeping or sleepy partners; but "when ignorance is bliss, 'tis folly to be wise," so of course they don't wish to open their eyes to it themselves; we must, therefore, awake them.

By cutting down the doctors to the lowest figure, the public, through Boards of Guardians, are cutting their own throats, under the delusion of "Economy, and keeping down the rates". The suicidal hand must be arrested, and a moral lesson read to them. Economy, indeed! Don't they pay for their whistle, that's all? When an independent labourer is sacrificed to the parsimony of the medical regulations of a Union, and, dying, leaves a wife and family to the parish, where is the economy? Prompt and efficient medical aid, even up to a consultation, might have shown a different result and true economy. Why, then, should these questions be confined exclusively to the Medical Journals? To the successful issue of Medical Reform, it is necessary the public and profession should fraternise. General Medical Reform, and Poor-law Medical Reform, are, in a measure, distinct: the first relates to the public, who can help themselves; the latter to the poor, who cannot help themselves.

To take the last first. "The Poor-law Amendment Act," what is it? A hydra-headed monster, with uglier features even than those in its medical aspect: to deal with it entire were a herculean task. Can its origin be traced and its root sapped? whence came it? Some deem it a hybrid progeny—by Local Self-Government out of Misrule—to which a pet metropolitan parish stood sponsor,—sweet innocent! and how like god-papa, who claims to be and continue its "model!" In anatomising the "subject," then, for a public demonstration, suppose we begin with "a model," and what do we find? "Horrible outrage!" why the words quite startle one; yet they head an obscure paragraph in some public journals, describing how the mortality of a metropolitan parish having greatly increased, some workhouse nurses, returning from "high mass" and their devotions at the temple of Bacchus, diagnose a "cause of death," which must have astonished the Registrar-General; they accuse their chief, the arch-nurse, of purloining the children's food, and starving them; the hiding-place is indicated, searched, and the stolen goods—ribs of beef, mutton-chops, milk, etc.—found ready to be conveyed away. Newspapers sometimes exaggerate: so the ribs of beef might be taken, "*cum grano salis;*" flanks and veiny pieces are tit-bits in workhouses, unless the term is used anatomically—ribs (*i. e.* bones) without the beef, for crushing purposes, perhaps.

Four infants died in one week! who is to blame? who is to blame? That's just the question that was proposed in the Crimea, and a whole commission was required to answer to it. But the matter, we are told, is under investigation; true, it is in more quarters than one: the reduction of the rates will be a poor set-off to this mortality. To what class of society did these children belong? Not the aristocracy; not professional life; not commercial; but to (we don't like the term, lower orders) the people! the people! whose sweet voices are this week being assiduously solicited, by rival candidates, for the distinction of representing them in Parliament, and becoming the champions of their rights—the people's rights: "*O fortunatos nimium sua si bona norint.*" But who seeks to represent the medical profession? who seeks its suffrage? who advocates the rights of the "Union Doctor?" He is without a champion; and although he would scorn to filch even a leaf of the laurels too scantily wreathed around the brow of a military hero, and more scantily still around that of the soldier-doctor, yet he thinks within himself that he, too, has done the "state some service," not by fits and starts, but calmly wrestling hand to hand with disease, with death, from the beginning to the end of his career,—a service of danger it would be considered in other than civil life.

One metropolitan member who has evinced a lukewarmness towards local self-government is threatened with (not ribs of beef; no, no;) the cold shoulder; that will suit him. Strange to say, the members are sent back to their constituents "wanting a cry." Poor-law and medical relief are not touched upon in most of the addresses to electors. Possibly the two pair of spectacles alluded to as occurring within one week might open the eyes of the people, and lead even the aristocracy to consider whether they might not find an outlet for their superabundant zeal and cash this side of Timbuctoo, and find a liberal return, too, in the shape of protection, from the thorough cleansing of some of those Augean stables existing in many of the wealthiest parishes, which first centralise and then vomit back the fomites of disease and death; for there is little faith to be placed in the "local self-government patent pedomotor parish doctor," who professes to defy or cure both, on the principle of an agricultural machine, clearing up all the work as he goes (of physician, surgeon, apothecary, and dispenser) with just two packetsful of pills (cathartic and cough) hurled indiscriminately, or it may be alternately. No! let "medical supremacy" be the cry, as opposed to Poor-law and parochial patriotism in matters of health, at least; and the erection of certain forthcoming hustings will sound to some ears like as that of the scaffold to a malefactor; for with pestilence on one

hand, and starvation on the other, the poor, the people, and the profession will see their interest is one and the same, and then, *tria juncta in uno*, they will meet the hydra-headed monster of Poor-law injustice on equal terms, and the three P's pull together as one body in the struggle for dear life, and establish the supremacy of the *vox Dei* as the guide and ruler of the

Vox Populi.

March, 1857.

P.S. How long the increased mortality had been going on at four-a-week, the papers say not.

THE MEDICAL OFFICER OF THE BANBURY POOR-LAW DISTRICT.

Letter from Shearman Chesterman, Esq.

Sir,—The severe criticism made in your last number on my conduct, in reference to the late vacancy of surgeon to the Banbury district, is founded on an *ipse dixit* statement.

I now forward you a full and correct epitome of facts (a copy of a letter addressed to Messrs. Rye, Grimbly, Griffin, Wise, Douglas, and Smiles, my accusers).

I willingly leave it to your sense of justice, to make such reparation that you may deem necessary, and to which you consider I am entitled, for the injury my character has sustained, by the unjust comments in your impression of the 28th inst.

I am, etc., Shearman Chesterman.

Banbury, March 31st, 1857.

[Copy.]

"*To Messrs. Rye, Grimbly, Griffin, Wise, Douglas, and Smiles.*

"Gentlemen,—You have taken considerable pains to disseminate, through the columns of the *Banbury Guardian* (*as well as by private circulars*), false and calumnious charges against myself; I will, for your information, as well as for the public, *whom you evidently wish to mislead*, detail a simple and truthful narration of facts, which I challenge you to disprove.

"On the evening of the day (Feb. 19th) that Mr. Grimbly resigned the office of Surgeon to the Banbury District, he called the medical men together at his house, to state the reception he had that day met with at the Board of Guardians; after speaking very fully and warmly of the insults he had received, he concluded in graphic language, peculiar to himself, with these words: '*Their conduct was just like a lot of parson and squire justices who had pounced upon an unfortunate poacher; they attacked me all of a heap; and when I left the room, not a single member of the Board took the slightest notice of me.*' He then proceeded to hint that an address of sympathy to him would be acceptable, which was at once prepared, and signed by all present. Some days subsequently, I heard from an influential member of the Board, that the above account was entirely incorrect.

"It appears that they (the Board) were desirous of dealing kindly towards him; that it was his manner which was so offensive and turbulent; and the question for their decision was a charge merely of neglect (not a serious one), viz., not attending properly to a female pauper, named Watts; upon one of the Guardians observing it would be better to send the case to the Poor-Law Board, Mr. Grimbly immediately replied, 'I will resign.' He has since represented in one of our local papers, and several medical periodicals, that it was a charge trumped up to urge him to resign, in consequence of his having previously applied for an increase of salary. The entire members of the Board then present, declared the question of salary had nothing whatever to do with his resignation.

"I remarked to him, on the evening in question, that he should not have resigned, but have courted an inquiry. He said, 'No; the conduct of the Board was so gross towards him, he had no alternative.'

"He afterwards mentioned to several persons that he would not again accept the appointment, unless they increased his salary, for he was tired of acting as their officer, the pay so inadequate.

"Upon Dr. Caparn learning distinctly from reliable information the avowal made by Mr. Grimbly, he (Dr. Caparn) considered himself freely justified in applying for the vacant office.

"This being done, a deputation, said to represent yourselves, waited upon me (in a manner bordering on insult), and inquired if I were aware Dr. Caparn had taken this step, and also wished to be informed if the act received my sanction; at the same time charging me, to my great astonishment, with having pledged myself, at the meeting held on the 19th, to oppose any person tendering for the vacancy.

"To this I replied, 'that no resolution of the kind was made during the short time I was in the room; and, until this moment, I was entirely ignorant that such a resolution had been passed, or it would have been opposed by me as illiberal and selfish, and contrary to my usual conduct.'

"I felt considerable surprise, after Mr. Grimbly so freely abusing the Board, together with subsequent declarations from him, that he and all of you should make an earnest and active canvass to secure his *re-election*. If he desired (*and it is now clear that he did*) to retain the appointment, notwithstanding the hard and unjust things he had said, why did he not have the manliness to declare his desire? and then, I venture to assert, Dr. Caparn would not have been a candidate.

"To add to your unjust proceedings, you have not hesitated to send printed circulars, to be publicly exposed on the table at the library of Guy's Hospital, in which Dr. Caparn and myself were shamefully misrepresented, and only made acquainted by mere accident of the fact.

"I am very generally and confidently informed, that the combination with the view to injure me is not the result of this misunderstanding, but the remnant of an old and rancorous feeling of jealousy that you could no longer conceal, and of which, until very recently, I was in utter ignorance.

"I remain, gentlemen, your obedient servant,

"Shearman Chesterman.

"Banbury, March 31st, 1857."

THE MEDICAL OFFICER OF THE BANBURY POOR-LAW DISTRICT.

Letter from John Caparn, M.D.

Sir,—In your Journal of the 28th inst. there is a leading article respecting the appointment of Medical Officer to the Banbury district, in which censure is passed upon my conduct for becoming one of the candidates. As this has arisen from an *ex parte* statement, and not from a true knowledge of facts, I beg to lay before you the accurate circumstances of the case.

Mr. Grimbly, some time before his resignation, addressed a letter to the Board of Guardians requesting an increase of salary, stating the amount he then received was unremunerative. To this application a courteous reply, by letter, was returned, with a promise that it should be considered at the proper time, *i. e.*, the termination of the quarter. That this was the case I am given to understand by the clerk of the Board. At a subsequent meeting, a charge of neglect against Mr. Grimbly was brought forward by one of the Guardians, which charge he (Mr. Grimbly) indignantly, and in the most intemperate language, denied; and from the evidence of two gentlemen present, of the highest respectability and standing in society, it would appear that, so far from his being treated in the rude and arbitrary way he had represented, he was met with a kindly and courteous manner. But a suggestion having arisen, that the charge had better be referred for discussion to the Poor-law Board, he at once exclaimed, "I'll resign."

After he had resigned, he was desirous that it should appear to his friends and the profession that he had been induced to throw up the appointment on the question of salary, notwithstanding assurance had previously been given him, officially, that that point should be duly considered, and which question, at that meeting, was not even under discussion. After this, an inaccurate statement is supposed to have been given to your Journal; which statement drew forth these stringent remarks on the conduct of the Guardians, and which also, by the misrepresentation, was the means of obtaining the signature to a vote of sympathy given by the medical men of this town.

In reference to the meeting at which I was present (so particularly alluded to in the *Lancet* medical journal), permit me to state, that it was not convened for the purpose of discussing the subject of the "resignation," but was simply a periodical (monthly) meeting of the members of the North Oxfordshire Medical and Chirurgical Society, a paper was then read by Mr. Chesterman, entitled, "Practical Observations on Croup." The business part of the meeting having terminated, and whilst the members were enjoying the hospitality of the gentlemen at whose house they were assembled, Mr. Grimbly, somewhat unwisely, started (to the surprise of several persons present) the subject of his misunderstanding with the Board. The observations which then fell from him were calculated to impress me with a belief that he did not, under any circumstances, again intend accepting the office which he had thrown up; I

may also add, that the general opinion of his medical bretheren who were present (so far as I could judge), was to the effect, that he ought not to have resigned, but should have made an appeal to the Poor-law Board for an investigation; and from a letter which was then read, purporting to be from Mr. Griffin of Weymouth, it was too evident that no assistance could be rendered, as he had voluntarily resigned. At this time I had not the slightest intention of becoming a candidate; but learning subsequently that another person had been requested to come forward, who was unconnected with the town, and that the Poor-law Board had expressed their willingness to send down a medical gentleman, if necessary, I deemed myself fully justified and at perfect liberty to apply. But, before I did so, it was arranged with Mr. Chesterman that he should have an interview with Mr. Grimbly, and learn if he (Mr. Grimbly) intended again making an application for the vacant appointment; and I also communicated with Mr. Chesterman from London, stating, that if such was the case, I should most positively decline coming forward, being anxious to avoid doing anything that could, by a possibility, be misconstrued into unprofessional conduct towards Mr. Grimbly, or be considered in opposition to the wishes or feelings of the medical practitioners of the town (a copy of this letter can be forwarded). Mr. Grimbly at that interview most emphatically declared he did not, and that he would not, accept the office, even were it offered to him. Not only did he state this to Mr. Chesterman, but to others; nor until the morning of the election, when it was too late to retire, was I aware of his having done so. At that meeting, a letter from Mr. Grimbly was read by the chairman, endeavouring to explain away the offensive assertions he had made previously against the Board, which letter was a decided apology, and an appeal to the members present that he should be re-elected. After making such an apology, they, taking into consideration his eighteen years services, thought him to be entitled to be again appointed, the Guardians having no ill-feeling towards him, but that which was caused by his own intemperate conduct; still, it was not with the large majority stated, but with one of five out of twenty-three Guardians present.

This is a simple unvarnished statement of the truth, "and I leave it to the profession to judge if the conduct of that gentleman who could make such misrepresentations, with a view, perhaps, either to injure my private character or create an unfavourable impression in the minds of the residents of the town in which I am now located as a perfect stranger," and yet afterwards beg to be reinstated in that office he had so positively declared he would not accept.

Though I may regret commencing practice, having to contend with an erroneous prejudice of my medical brethren (one, as they well know, of their own creating), yet the onus must remain with those who, instead of holding out the hand of fellowship, would rather sanction the disguise of truth to gratify a feeling of discreditable jealousy against a new comer in the town. I am, etc.,

John Caparn.

Banbury, March 31st, 1857.

P.S. I will only allude to an anonymous paper sent to my medical school, casting reflections on my character, when it was well known from absence I should have no means of justifying myself: a proceeding alike contemptible and unprofessional. Papers also intended to have the same injurious effect, have even been distributed to the private friends and patients of Mr. Chesterman, pointing out that there is a far deeper feeling in agitation than a mere parochial medical contest would excite; an appointment of itself nearly valueless but for the gratification of assisting and alleviating the distress of those who have not only sickness but poverty to contend with. The signature to these should be *anguis in herbâ*.

MEDICAL ETHICS IN POOR-LAW APPOINTMENTS.

Letter from L. O. Fox, Esq.

Sir,—In recalling the attention of the profession to the conduct of Mr. Francis Taylor of Romsey, in accepting an office in that Union vacated by me, on account of insufficient salary (recorded in the British Medical Journal of the 17th of January), permit me to thank the numerous gentlemen in different parts of England, who have kindly tendered me their sympathy and support. To you, sir, also, are my thanks due, for the expression of your opinion on the matter, and for the insertion of my former letter. I deeply regret it should be necessary to trespass again on your columns; but a regard for my own character, and respect for the great question of Poor-Law Medical Reform, compel me to lay the case of Fox *versus* Taylor once more before the profession, that they, as the superior court, may amend the verdict of an inferior court, just pronounced.

When this case was first reported in the journals, it was suggested to me to bring it before the Southampton Medical Society, which took cognizance of medical ethics, and of which body Taylor and I were members.

I applied to the Society for a hearing of the case, and the following is an abstract of what took place.

The secretaries fixed a day, and informed Taylor and Fox thereof. Taylor replied, "Too busy to attend." The secretaries then wrote, asking Taylor to fix a day. Reply: "Can't fix; don't want any controversy." Fox wonders at the delay, and urges the secretaries to proceed; at length *they* fix a day, give Taylor notice, and request him, if not able to attend, *to write* in defence or explanation.

Meeting 24th Feb., Dr. Oke in the chair. Taylor absent. Letter received from him and read: "That he can justify every step he has taken, and has no objection to communicate *privately* with the president or secretaries.

The following is an abstract of the case heard.

Fox and Taylor, Medical Officers of the Romsey Union. Fox's district, 5,000 acres; population, 1,500; salary, 13*s.* 10*d.* per week. Fox applies for an increase of salary on Monday, Dec. 20th, 1856, the Board day. Board of Guardians refuse by letter, dated Monday, 29th Dec.

Fox resigns in consequence; date of letter, Wednesday, 31st Dec.; to be laid before Board on Monday, 5th Jan. 1857.

No appointment made that day, but Mr. Taylor and Mr. Sainsbury (another medical officer), were offered the district; at all events, were written to on the subject.

Jan. 3rd, *before Fox's resignation could be known by the Board* (their meeting being on the 5th), Fox informs Taylor thereof, with his reasons, and asks for Taylor's sympathy and support. Taylor replies to Fox on Jan. 10th, stating that he has taken the district on the old terms, "because it came in with his work," etc. (*vide* Journal, Jan. 17th), and apologises for having so long delayed answering Fox's letter of Jan. 3rd.

Meeting at Southampton adjourned, to give Taylor another opportunity of explanation. Fox lives seventeen, Taylor eight miles from Southampton. Next meeting: Society unanimous in condemning Taylor's conduct: passed a resolution so strong as to be considered libellous, and therefore withdrawn. Committee appointed to hear Taylor privately. President and secretaries to be a sub-committee for an interview. Meeting adjourned.

March 27. Meeting of society: Dr. Oke chairman. Subcommittee retired to adjoining room to communicate to committee result of private conference with Taylor. On their return, the president communicated such information to the meeting as Mr. Taylor *allowed to be made public*, in his defence, which was,

1st. That he had accepted the office before he received Fox's letter, and therefore was not acquainted with the circumstances attending his resignation; and,

2nd. That the Rev. C. Kingsley had said "the salary was an average one."

It came out accidentally, that the reason Mr. Taylor could not attend the general meeting was a predisposition to palpitation of the heart, and Dr. Elliotson had recommended "the avoidance of all excitement." Fox having been called in, and Taylor's defence read to him, it was suggested, that Taylor might have had the office offered to him before the meeting of this Board on the 5th of January. To this it was replied, that no one could have been authorised to offer it, but admitting that Taylor had plenty of time, after knowing the circumstances, to rectify his mistake, had it been a mistake only.

The society proceeded to return a verdict, and, after some discussion, the following was handed to Fox:—

"The Medical Society having maturely considered the circumstances connected with the resignation by Mr. Fox of the appointment of medical officer of the Motherport district, and the acceptance of the office by Mr. Taylor, cannot but express their regret that Mr. Taylor did not communicate with Mr. Fox prior to accepting the office, and would urge on both gentlemen, that it will be the wisest and kindest course to take no further proceedings in a matter which may lead to much unpleasant controversy, and very painful results."

I call upon my medical brethren throughout the kingdom to say if I have been treated fairly in this matter by the Southampton Medical Society. I ask them to say if any private matter

should have been introduced or allowed to operate in deciding on a public question.

Emerson says (in his *Traits*), "The English game is fair play and open field, without trick or dodging; they hate craft and subtlety. They neither poison, nor waylay, nor assassinate." Let me have English treatment, and I fear nothing.

Some slander must have operated to induce a body of men one day to pass the strongest possible resolution, and the next, such an one as that just quoted, on the same subject. How far this is just I leave my brethren to say.

I now call upon Dr. Oke (as I did at Southampton), regardless of consequences to myself, to declare the grounds on which the Society changed their tone in reference to Mr. Taylor's conduct. As I am only desirous that truth should prevail, I make this proposition to Dr. Oke:—That, if Mr. Taylor can justify his breach of professional etiquette, by any circumstance or matter of a private or public nature whatever, in relation to myself, to be decided by any impartial professional man, I hereby promise to pay £10 to the Treasurer of the Southampton Infirmary; and that, should Mr. Taylor fail to do so, he shall be expelled the Southampton Medical Society.

Why does not Mr. Taylor go the meetings of the Society? A score of professional neighbours need not make his heart palpitate; it need not do so, more than a cross-examination at the Old Bailey in Palmer's case, or attendance at the noisy meetings of the Cemetery Board at Romsey, or than at his own election as mayor and alderman of that town.

I call upon the excellent and honourable men belonging to the Southampton Society to arouse themselves, and, for the reputation of their body, to assemble at the next meeting, on Tuesday the 14th of April, and prove themselves capable of judging of a case impartially and on its merits.

I am, etc., L. Owen Fox.

P.S. There may be some trifling inaccuracies as to the order of the foregoing proceedings, but the account is substantially true.

I omitted to mention that, upwards of a year ago, I informed Mr. Taylor that I should resign if I did not get my salary increased.

Broughton, Stockland, March 31, 1857.

OBSTRUCTION OF THE PULMONARY ARTERY.

Letter from Henry Lee, Esq.

Sir,—In the *Dublin Quarterly Journal of Medical Science* for November last (p. 377), Dr. Kidd states that, "Though dissection has, in numerous instances, proved that obstruction to the pulmonary artery was the cause of death, in no case has the true nature of the disease been recognised during life."

In the Association Medical Journal for 1855, are published at length the notes of a "case of supposed obstruction of the right pulmonary artery." These notes, with the above heading, were taken during the years 1851-52, and the case was related to the Medical Society of London in 1853. The correctness of the diagnosis was verified on the 4th of October 1854; and the preparation of the obstructed pulmonary artery is preserved.

I am, etc. Henry Lee.

13, Dover Street, Piccadilly, March 30th, 1857.

EFFECT OF LIGATURE OF THE FEMORAL ARTERY ON HÆMORRHAGE FROM THE FEMORAL VEIN.

Letter from G. B. Halford, M.D.

Sir,—Having once seen the femoral vein wounded during an operation for tying the accompanying artery, and witnessing the hæmorrhage cease immediately on ligaturing the artery, I was led to reflect whether in all such accidents the completion of the operation be sufficient, and need alone engage the surgeon's attention. A reference to one or two works on Practical Surgery, furnished me with cases very similar to that which I had witnessed.

For my own satisfaction, I tried the same thing on rabbits. Having exposed the femoral vessels, I passed a ligature between the vein and artery loosely surrounding the latter; I then opened the vein, when the hæmorrhage was great; the ligature round the artery was tightened, and the bleeding from the vein ceased. This was repeated ten times on different animals, and with the same result.

Should you think these remarks interesting to the operating surgeon, perhaps you will give them a place in your valuable Journal.

I am, etc.,

George B. Halford.

17, Victoria Square, Grosvenor Place, March 1857.

DISEASES OF SPECIAL OCCUPATIONS.

Letter from Thomas Hayes Jackson, M.D.

Sir,—I remember reading many years ago that a gentleman had invented a mask, on the principle of the magnet, which, when worn by the needle-grinders, attracted the particles of steel, and thus protected the lungs. Several masks were presented to the grinders.

The needle-grinders met in a body, consulted, and came to the conclusion, if they permitted the mask to be worn, many more would enter the trade, and wages would decrease; they therefore agreed to destroy the masks, determined to realise high wages, a short life, and a merry one.

Will you, or any of my associates, inform me if the above suicidal transaction is authentic?

I am, etc., Thos. Hayes Jackson.

Darlington, March 26th, 1857.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

BIRTHS.

Haviland. On March 24th, at Cambridge, the wife of H. J. Haviland, M.D., of a son.

Menzies. On March 26th, at Tilbury Fort, Essex, the wife of Staff-Surgeon Edward Menzies, of a son, prematurely.

*Pemberton. On March 27th, at Temple Row, Birmingham, the wife of Oliver Pemberton, Esq., Surgeon, of a daughter.

Smith. On March 29th, at 14, Caroline Street, Bedford Square, the wife of Henry Smith, Esq., F.R.C.S., of a daughter.

MARRIAGES.

Finlay—Mais. Finlay, David Lake, Esq., Surgeon, Royal Mail Steam-Packet Company's Ship *Parana*, to Amelia Ann, daughter of the late Hon. John Mais, at St. Andrew's, Jamaica, on February 24th.

Hankin—Travers. Hankin, Frederick G., Esq., 15th Regiment Madras Native Infantry, to Lucy Adeline, youngest daughter of Benjamin Travers, Esq., Surgeon, of Green Street, Grosvenor Square, at St. George's, Hanover Square, on March 24th.

Marlow—Man. Marlow, B. W., M.D., 28th Regiment, to Jane Mary, youngest daughter of the late Henry Man, Esq., of Hamilton Terrace, St. John's Wood, at Newcastle-on-Tyne, on March 21st.

Mounsey—May. Mounsey, John, Esq., of Sunderland, to Caroline, third daughter of Edward Curtis May, Esq., Surgeon, of Tottenham, at the Friends' Meeting House, Tottenham, on March 26th.

DEATHS.

Cooke, William, M.D., F.R.C.S., formerly of Durham, at Oaklands, East Tytherley, Hants, aged 80, on March 21st.

De Morgan. On March 24th, Francis Augustus Campbell, the infant son of Campbell De Morgan, Esq., of Upper Seymour Street.

Goddard. On March 16th, at Eastbourne, Sussex, Sarah Mears, wife of Henry Goddard, M.D., of Brighton and Eastbourne.

Kelly, Thomas Knox, Esq., Surgeon, of 19, Addington Place, Camberwell, on March 26th.

APPOINTMENTS.

*Fuller, Henry William, M.D., appointed Physician to St. George's Hospital.

PASS LISTS.

Royal College of Surgeons. Members admitted at the meeting of the Court of Examiners on Friday, March 27th, 1857:—

Beer, James John, Deal
Blackall, John George, Exeter
Croome, William, Army

GOODALL, Ralph, Leabridge, Newcastle, Staffordshire
JONES, Thomas, Pencoyd, Herefordshire
KNAGGS, Henry, Huddersfield
REES, Hugh, Carnarvon
SPRAKELING, Robert John, Canterbury
TATHAM, John, Burton-in-Lonsdale, Yorkshire
WALLIS, George, Cambridge
WHITEFIELD, Arthur, Barnstaple, Devon

Monday, March 30th:—

ARDAGH, Arthur, Barrie, Canada West
BAKER, William Langworthy, Newton Abbot, Devon
BARNES, James Hindmarsh, Westminster Ophthalmic Hospital
BLUCKE, Robert Daniel, Brighton
BULLMORE, William King, Falmouth
HETHERINGTON, Joseph, Lamplugh Hall, Cumberland
LITTLEWOOD, Joseph, Hampole, Doncaster
WARD, Isaac Dunlin, Clifton, near York

APOTHECARIES' HALL. Members admitted on Thursday, March 26th, 1857:—

BARNES, Herbert Sedgwick, Chelsea
BLANDFORD, George Fielding, Fifield, Wiltshire
BLACKMORE, Humphrey Purnell, Salisbury
BRIDGER, John, Newick, Sussex
CAIRD, William Edward, Exeter
CARR, William Thomas, Newcastle-on-Tyne
CASANOVA, John Narbert, London
DEVONSHIRE, Charles James, Hampton, Middlesex
DRESSER, William, Coventry
LEEVER, Robert, Army
PATRICK, Jarman, Kent
POOL, William Brooks, Canterbury, Kent
PRALL, Samuel, Rochester
SKINNER, David Shorter, Headcorn, Kent
TATHAM, John, Burton-in-Lonsdale, Yorkshire

HEALTH OF LONDON:—WEEK ENDING MARCH 28TH, 1857.

[From the Registrar-General's Report.]

THE total number of deaths registered in London in the week that ended on Saturday, was 1248. In the ten years 1847-56, the average number of deaths in the weeks corresponding with last week was 1318. But the deaths of last week occurred in an increased population; and to admit of comparison, the average just given should be raised in proportion to the increase; and in this case it will become 1450. The number now returned is less by 202 than the corrected average.

The births registered last week exceed the deaths by 689.

The increase, not very great, in the return of deaths registered last week over those of some previous weeks, is not due to a higher rate of mortality, but to more than the just weekly proportion of deaths returned by Coroners being placed on the registers, which is a usual occurrence at the end of a quarter.

Fatal cases of the disease which form the zymotic class exhibit a decrease from 197 in the preceding week to 187 last week. The corrected average for corresponding weeks is 251. Hooping-cough, as usually happens at this period of the year, is the most fatal of this description of diseases, and numbers 60, the average being 63. Measles, to which 20 cases are referred, is also about the average; whilst scarlatina, which caused 20 deaths, typhus and common fever, which caused 34, and small-pox, which was only fatal to three children, are all decidedly below the average. No deaths from small-pox occurred in the western, eastern, or southern districts. Taking all the five zymotic diseases which have now been specified together, only four deaths from them occurred in East and West London and the City; none in the Strand district or in St. George-in-the-East; only one in St. Saviour, Southwark; none in St. Olave; two in Wandsworth; one in Lewisham. It does not appear, however, that the weather has lately been very favourable to persons subject to bronchial affections: 164 persons died in the previous week from bronchitis, and 160 last week, the average being 125. The mean weekly temperature, which in the second week of March fell to 37·2°, and rose in the subsequent week to 45·1°, fell again last week to 39·6°. On the 18th, the mean temperature was 11° above the average; on the 22nd, it was 9° below it.

Three persons who had attained the age of 90 years or upwards, are recorded in this return. The oldest is a gentleman, who died at Bow, at the age of 95 years.

Last week the births of 990 boys and 947 girls, in all 1937 children, were registered in London. In the ten corresponding weeks of the years 1847-56, the average number was 1700.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·325 in. The highest reading in the week occurred on Friday, and was 29·90 in. The mean temperature of the week was 39·6°, which is 2·6° below the average of the same week in 43 years. The mean daily temperature was below the average on the seven days from the 21st to the 27th inclusive. The highest temperature occurred on Saturday, and was 54°; the lowest occurred on Sunday (the 22nd), and was 27·7°. The range of the week was therefore 26·3°. The thermometer fell on four nights below freezing point. The mean dew-point temperature was 34·3°, and the difference between this and the mean temperature of the air was 5·3°. On Sunday, the wind was in the north-west; afterwards, its direction was for the most part south-west and south-east. The air was latterly calm. There was hardly any rain. Some snow fell on the first two days.

TRIAL FOR MANSLAUGHTER.

Crown Court. Before the Chief Baron.

ALFRED MATCHAM, aged 30, was indicted for the manslaughter of Mary Ann Jeckells, at Lowestoft, on the 29th of September last.

Mr. Dasent conducted the case for the prosecution; Mr. Power and Mr. Bulmer were counsel for the defence.

The prisoner is a medical man having a large practice, and especially in midwifery cases, at Lowestoft, where he has resided some five or six years last past. In September last he was engaged to attend the deceased, who had borne four children before, in her approaching confinement, she being then only seven months gone. On the 19th she was taken ill, and from that time to the 22nd the prisoner was unremitting in his attendance. On that day she appeared to the women about her and to the prisoner to be sinking from a very protracted labour, and the prisoner determined to resort to the use of instruments; and after three attempts the child was brought into the world. During the first and second attempt the patient suffered much, and was violently convulsed, so much so that the instruments slipped, though she was held down by the women present. After the birth of the child the patient expressed her thanks to the prisoner, and she seemed to be going on well for a few days, but after that she grew faint and sick, and, though her husband became greatly alarmed, and wished for further advice, the prisoner assured him his wife was going on well, and that there was no need for any other advice. On the 28th, however, the husband called in another gentleman, Mr. Worthington, who pronounced the patient to be in a dying condition, and on the 29th she died. Mr. Worthington then made a communication to the churchwarden, who spoke to the husband, and the result was a coroner's inquest. The prisoner was not present, nor was he consulted on the subject; but the coroner and jury expressed a wish for a *post mortem* examination, and at their request Dr. Webb, a gentleman occasionally resident in the town, superintended that operation, which was performed by Mr. Worthington, assisted by Mr. Cleveland, a former pupil, but then also practising, and who had attended the deceased in her preceding confinement. The prisoner was not present at, nor was he called upon to attend this examination; and on the following day the three gentlemen above named reported to the coroner that they had discovered extensive injuries in the person of the deceased, which, in their opinion, accounted for death; but they did not extend their examination beyond the parts of generation. When examined to-day, they stated that under the circumstances of the case the use of instruments was unadvisable, and that in their opinion the prisoner had used them in a grossly unskilful way, or he never could have produced the injuries in question.

On the part of the prisoner it was contended that this charge had originated in professional jealousy, created by his having absorbed almost all the practice of the vicinity; that he had, as was admitted by the friends of the deceased, been tender and attentive in his treatment of her; that there were great difficulties in the confinement, which rendered the use of the instruments an absolute necessity; and that the injuries spoken to, if they existed to the extent detailed by the prejudiced witnesses, were attributable to accident, for which the prisoner ought not to be held responsible. Much stress was also laid on the fact that the examination was not extended to the whole body, and that the prisoner had not been called upon to

be present in person or by a friend at the *post mortem* examination, so as to explain the case to the witnesses; and the jury were called upon to infer that he had discharged his duty to the deceased with great skill and care from the fact that he had attended upwards of two hundred women in their confinement during his residence at Lowestoft and elsewhere, and had never before met with one fatal case. The learned counsel proposed to prove the latter fact by calling many of his client's patients, but

The Chief Baron refused to allow such evidence to be gone into under the head of "witnesses to character," and the case then went to the jury on the evidence adduced for the prosecution. In the course of his observations the learned judge stated that, though the prisoner was not qualified by any English diploma, he appeared to have had a considerable practice, and, according to his own statement, possessed a diploma from New York; but whether that were so or not he was entitled to be present at the examination of the body, and he conceived that it was the duty of the gentlemen who conducted it to give him the opportunity of witnessing that operation, on which so much depended. In his opinion, great injury would ensue both to the public and to the medical profession if, when a medical man entered a sick room and met with a difficult case, he was to exercise his art under the apprehension of a charge of manslaughter if the case should take a fatal turn. However, the law was clear that no man, whether qualified or no, ought to undertake the responsible task of a medical practitioner without bringing to its discharge competent skill and ability; and if he displayed gross ignorance, or exercised his profession with gross want of skill, and death ensued from such, he would be liable to the charge of manslaughter. The question, therefore, was whether the jury thought the prisoner had so unskilfully conducted himself as to cause the injury to the extent deposed to by the medical witnesses; and, if so, whether that injury had produced the death of the deceased? If so, then they ought to find him guilty; but if they doubted the partial observations made under the circumstances and the opinions founded on them, or thought that the injuries might be attributable to accident, or had not, however caused, produced death, the prisoner was entitled to an acquittal.

The jury, after a brief deliberation, returned a verdict of *Not Guilty*, which was received with evident satisfaction by a crowded court, the inquiry having created a great sensation in the county. (*Times.*)

The Atlantic Telegraph. Orders have been received at the Navy-yard in Brooklyn from the Secretary of the Navy to fit out at once the United States steamers *Niagara* and *Mississippi* to proceed to England to assist in laying down the submarine telegraph cable between Newfoundland and Ireland. The *Niagara* is the largest steam-vessel of war in the world. She is a propeller. The *Mississippi* is the most powerful paddle-wheel steamer in our navy. The English government will also furnish two large ships of the same character. The *Niagara* will receive on board at London or Liverpool one-half of the cable, and the other half will be put on board the English naval propeller. The four ships will then proceed together to the middle of the Atlantic, where the ends of the cable will be joined, and the propellers will then start in opposite directions—the one for Newfoundland and the other for Ireland—each attended by a paddle-wheel steamer, so that in case of accident the propellers may be taken in tow and proceed on the voyage. We are glad to see that Secretary Dobbin has taken such deep interest in the success of this great enterprise as to order at once the finest ships in the American navy for the purpose. We doubt not that the new secretary of the navy will see that the ships are fitted out in a manner most creditable to the United States government. No doubt there will be a generous feeling of rivalry between the officers of the British and American ships to see which shall lay its part of the cable in the most perfect manner. It is a sign of advancing civilisation when the ships of war of these two great nations thus meet in mid-ocean, not for a naval battle, but in a peaceful effort to join the two hemispheres. (*New York Herald.*)

Militia Medical Society. A meeting of this society was held at Birmingham, on Saturday, March 28th, which was numerously attended; although many members were prevented by the general elections.

The annual meeting will take place at Oxford in July next, of which due notice will be given to the members.

LORD GREY ON THE CONDITION OF THE BRITISH SOLDIER.

The following abstract of an address delivered by Lord Grey to the House of Lords, on April 8, 1854, is *apropos* on the present occasion, when Army Reform is occupying much attention. His Lordship, after stating that he was embarrassed by the superabundance of materials, observed:

1. When Secretary for War and the Colonies, Lord Grey "caused a careful examination to be made of the Reports of the Medical Officers and of the Medical Statistics of the Army." His lordship "ventures to say, that the results of that examination were of the most frightful description;—so frightful, indeed, that it has always been to him a matter of surprise, that while the attention of Parliament is easily attracted to what appears to him far less important matters, that the shocking details contained in these Reports should have obtained so little of the notice of the legislature.

2. "Taking the one single station of Jamaica, it was found that one-seventh of the whole force was annually cut off by disease, in addition to those who were invalided.

3. "Taking the whole mortality of the twenty years ending 1837, there perished of the British force in Jamaica no less than 6,700 men.

4. "The average force employed in that island was 2,578, and the annual deaths among them 350, or nearly 130 per thousand."

5. That comparing the loss which took place in the battle of Waterloo, with that of one year's service in Jamaica, it was more deadly by nearly one-third than "the great battle of modern times." At Waterloo, it was as 100 per 1000 "of those who stood the whole brunt of the engagement"; as stated, the annual deaths per thousand in Jamaica were 130.

6. This frightful sacrifice of life was not the inevitable result of climate; but, on the contrary, that "in a very few years, the mortality was reduced from 130 to 53 in a thousand", and that "within the last ten years, instead of the deaths being 130 per thousand, the average number was only 34. This saving of life was the result of Lord Metcalfe's removal of the soldiers to the mountain stations.

7. "The lives of nearly 5,000 British soldiers have been thrown away in Jamaica through neglect", all which could have been easily saved by "practicable precautions during the twenty years succeeding the peace.

8. "That they have been as much sacrificed through want of management as if they had been drawn out in front of their barracks and shot upon the spot."

9. Throughout the entire West India command "nearly one-half the lives that used to be sacrificed, were sacrificed through neglect"; but "this mortality might have been prevented by the most ordinary precautions."

10. "When the investigations were commenced into the state of the health of the troops in 1835, medical officer after medical officer had reported for a long series of years, that it was most injurious to the health of the troops to feed them upon salt provisions. Every medical officer that went to the West Indies had been giving this description of evidence, and yet what was done? Absolutely nothing."

11. At the time here spoken of, "your soldiers were every week receiving salt provisions for five days, and it was only on the two remaining days that they were allowed fresh meat."

12. Lord Grey now, though "it was no part of his duty as Secretary of War, regarded the loss of men as a public calamity"; and he "at once, without considering whether it was his business to interfere or not, commenced a correspondence on the subject."

13. "Nearly two years after the subject was first broached", Lord Grey succeeded in procuring fresh food for the soldiers in the West Indies.

14. "While the soldiers who were unstained by crime were condemned to five days salt provisions weekly, the convicts were allowed five days fresh meat"; and that "while the troops were suffering, the convicts were in good health."

15. All this time "fresh meat was cheaper than the salt; so that there was actually a saving to the nation by giving our troops wholesome instead of unwholesome food."

16. That a like saving of the public money might have been effected of "rather more than half the cost of the bread supplied to the troops at Gibraltar, had it been obtained from Malta." In place of so natural an arrangement, flour made from "Black Sea corn", imported into this country, was then "taken across the Atlantic to America, and finally sent thence to Gibralter for the consumption of our troops. The cost of

bread was £7,800, and of that a saving of about £3,500 could have been effected.

17. "During the whole time that the Emperor Napoleon was confined at St. Helena, our soldiers had not a day's fresh provisions issued to them, except on Christmas Day, and other festivals; and the consequence was that there was a very heavy rate of mortality among them.

18. "During the whole time when the frightful mortality prevailed among our troops in Jamaica and the West Indies, they were only allowed eighteen inches of sleeping room, and in 1837 they were so crowded that in barracks they were obliged to sleep in hammocks. This mismanagement existed long previous to the year referred to.

19. "In Trinidad, the mortality was great because the men at Orange Grove were obliged to reside in barrack rooms constantly wet, owing to the rain coming in, and that, were the lowest class of negroes in the island so badly lodged, the proprietor of slaves would consider it his duty to prosecute the proprietor of the estate to which they belonged." Such was reported by Drs. Lamont and Blair.

20. The said barracks and hospitals were again reported by Drs. Hacket and Hartle to be in a "most disgraceful state"; but "for eleven whole years", and notwithstanding the repeated reports of the medical officers, "you kept the British soldiers in the town where the medical officers reported the mortality was great because the men could not be kept in their barracks."

21. "In the hospital of St. Vincent the accommodation was utterly inadequate for the requirements of the troops. The hospital was not finished for nine years after its erection had been ordered, and for some time after the foundations of it had been laid. Even then the accommodation it afforded was greatly inadequate.

22. "In the same manner at Antigua there were the greatest complaints of the inadequacy of the accommodation." The medical officers complained of the abolition and sale of the Detachment Hospital, "sold in lots by a positive order of the Board of Ordnance for not £300, although above £5,000 was the sum originally expended.

23. "In 1825 between 700 and 800 European soldiers were sent to Sierra Leone." Though barracks were during five years reported to be wanting, none were ready when the troops arrived. "The scene which ensued baffles all description. The unfortunate men crowded into rooms as fast as they could be covered in, even though the plaster was still wet. Fever of the very worst description was soon generated in such a situation; and before many days had elapsed almost every one was attacked by it. The officers sought refuge in huts which even the natives had abandoned; the sick, the dead, and the dying were crowded together; and before the end of the year two-thirds of the force were in their graves."

24. "To relieve" these unhappy men "200, for whom no accommodation whatever could be found, were sent to Gambia. The barracks there were as bad as at Sierra Leone, and could not hold, however crowded, more than 108 out of the 200 who had been sent. The rest were kept afloat till room could be found for them. They had not long to wait; for in three months 87 out of the 108 first landed died, and the others were immediately disembarked."

Royal College of Surgeons. The first part of the annual course of lectures delivered in this institution has just been concluded by Professor Busk, F.R.S., who has proved himself the able successor of Mr. Owen by delivering twelve lectures on the Anatomy, Physiology, and Classification of the Invertebrate Animals, in a highly creditable manner. Professor Quekett will commence his course on Tuesday, April 7th, the subject being "The Structure of the Skeleton of Plants and Invertebrate Animals".

Singular Disease in Washington. The Washington Board of Health is investigating the cause of the recent singular disease that attacked all the guests of the National Hotel in that city. Two or three persons have died of it, and many are still suffering, among them Mr. Buchanan, who was attacked during his stay there previous to his inauguration. A ridiculous story has been circulated of a wholesale poisoning from malice; another, that the water tanks were impregnated with arsenic used to poison rats. The real cause is supposed to be a choked public sewer that runs under the house. The hotel has been nearly ruined by the incident, as it was deserted, even during the late demand for lodgings. Besides this particular visitation, the whole city has been unhealthy ever since the sudden thaw.

Inquest. An inquest was held before J. Alexander, Esq., coroner for the county, at the Adam and Eve, at Greenham, on Thursday, the 12th inst., on the body of Sarah May, wife of Thomas May, aged 59 years, who was found dead in bed the day previous by her son, who said, that as she did not get up at her usual time on Wednesday, he asked her to allow him to fetch Dr. Carter; she said there was no occasion, as she had got medicine from Mr. F. Davis. He went into her room again two hours afterwards, and found her dead. Mrs. Wickens was with him then. The husband was examined at some length. He stated that his wife had not been in good health for a long time, but was about till the evening before she died. For a fortnight or so she had been suffering from a bad cold or cough, and had medicine from Mr. F. Davis. Was at his house the night before she died, and brought home a bottle of mixture; some of which she took on going to bed, and some the next morning, a few hours before she died. He left her at eight o'clock, when she said she was much as usual, and would lie in bed a little longer. Had then had some tea and toast. Mr. F. Davis, who had been summoned by the coroner, was then sworn. He admitted having prescribed for deceased a fortnight before, and on the Tuesday evening had furnished her with a bottle of mixture. (An account of the medicines composing the mixture was handed in, and examined by the coroner.) After some further remarks, the coroner said, that it was quite clear the medicine prescribed by Mr. F. Davis could have nothing to do with the death of Mrs. May. He said he believed it to be a common practice for chemists to prescribe, nevertheless it was illegal, and parties so acting exposed themselves to heavy penalties. It was most dangerous, and practically illustrated in the present instance, as shown in the conversation of the son, George May, with his mother. Had this poor woman gone to the Dispensary, or to some medical man, there might have been discovered some serious disease that required energetic and prompt treatment, and her life spared perhaps. The result might have been the same, but the chance was lost. Under such circumstances, frequently, loss of time was loss of life. He thought the jury could return no other verdict but that of natural causes. Verdict accordingly.

Medical Society of London. On this (Saturday) evening, April 4th, a paper will be read by Dr. Willshire, "On some points connected with the Propagation and Treatment of Tænia."

Epidemiological Society. On Monday, April 6th, a paper, "On Fever and Scurvy in the Turkish Fleet", will be read by J. N. Radcliffe, Esq., late of the Ottoman Medical Staff.

TO CORRESPONDENTS.

Diseases of Special Occupations. Dr. J. C. Hall's third paper on the Sheffield Grinders is unavoidably postponed till next week.

Reviews of Dr. Swayne's "Obstetric Aphorisms", Dr. Montgomery's work on "Pregnancy", Dr. Tilt on the "Change of Life", and of several other volumes, have been unavoidably postponed, but shall shortly appear.

Dr. O'Connor's letter shall be inserted next week.

The New Parliament. The following Resolution has been forwarded to us. "At a numerous meeting of the County and City of Cork Medical Protection Association, specially convened and held on Saturday, 21st March, at the Royal Cork Institution, Dr. Harvey, President in the Chair,

"It was proposed by Dr. Corbett, seconded by Dr. Hare, and unanimously resolved:—

"That in the approaching Election our brethren be earnestly called upon to lend no support to any Candidate who will not pledge himself to watch over the interests of the Medical Profession in Parliament. Hitherto in almost every legislative enactment the rights and privileges of a body of men inferior to none in their professional and social position, which in this age of progress ought to have been protected, have been either altogether neglected or ignored, and in many instances burdens have been thereby imposed on practitioners in public employments which would never have been ventured upon with regard to the other professions. Therefore we deem it a duty on the part of the Association to warn all medical Medical men in County and City to exercise their franchise, irrespective of party bias, only in behalf of the Candidates who will scrutinize such measures as may be proposed affecting the Profession, and see that justice be done as well to private practitioners as to public officers.

(Signed),
"J. R. Harvey, M.D., Chairman.
"Chas. Armstrong, M.D., Hon. Sec.

"March 21st, 1857.

Communications have been received from:—Dr. P. H. Williams; Mr. John Gibb; Mr. T. Nunn; Mr. Haynes Walton; Mr. H. W. Rumsey; Mr. John Kent Spender; Dr. Markham; Mr. J. F. Nicholson; Mr. Stone; Dr. J. Johnston; Dr. C. Handfield Jones; Dr. A. B. Garrod; Mr. T. Holmes; A Member of the British Medical Association; Mr. Pepper; An Associate; Mr. Hansard: Mr. Henry Lee: Mr. John Kitching (with enclosure); Dr. G. B. Halford; Dr. J. Milner Barry; Dr. Hayes Jackson; Mr. Browning (with enclosure); Dr. J. C. Hall; Mr. W. J. Cooper: Dr. Thomas Williams (with enclosures); Mr. J. V. Solomon; Mr. G. B. Masfen; Dr. Bucknill; Mr. MacDermot; Mr. Owen Fox; Dr. O'Connor; Dr. F. G. Robert; Dr. Caparn; and Mr. Chesterman.